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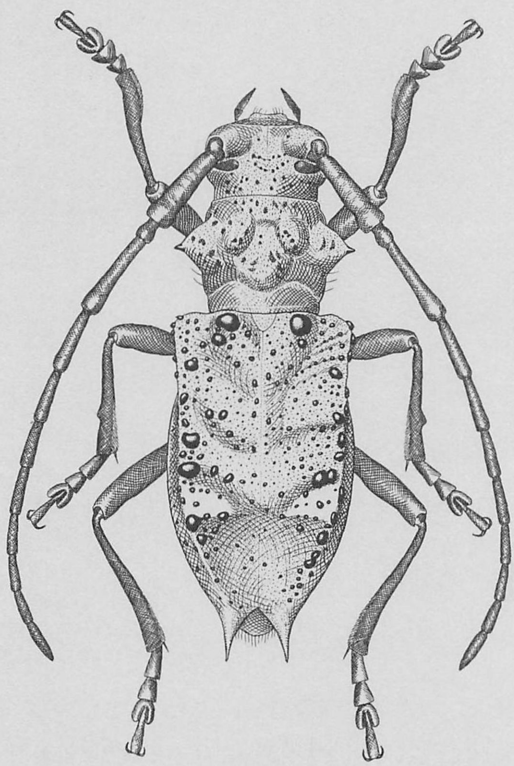

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Elytra, *Tokyo*, **20** (1): 1–10, May 15, 1992

Two New *Epaphius* (Coleoptera, Trechinae) from the Kushiro Moor, Northeast Japan[1)]

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Abstract A new species and a new subspecies of the trechine subgenus *Epaphius* are described from the Kushiro Moor in eastern Hokkaido, Northeast Japan. The new species, named *Trechus* (*Epaphius*) *pirica*, belongs to the group of *T. hashimotoi*, while the new subspecies, named *T.* (*E.*) *plutenkoi kushironis*, is regarded as an isolated insular form of a species originally described from the Russian Far East.

The Kushiro Moor, protected as a national park, is one of the largest low altitude moors now extant in the Japanese Islands. It lies near the Pacific coast at the eastern part of Hokkaido, the northernmost main island of Japan, and is well known for the existence of various hygrophilous animals, which are widely distributed in the circumpolar areas but whose occurrence in Japan is restricted to this national park. The Siberian salamander, *Salamandrella keyserlingii*, is the best example of this. Consequently, repeated faunal investigations have been made in the moor, and many reports have been published on the results. It was therefore most unexpected that two new trechine beetles still remained undiscovered in the moor until recently.

Late in the summer of 1990, Masataka Satô and Masahiro Sakai visited the moor for investigating aquatic beetles. While collecting at the edges of an old canal covered with reeds, Satô found a trechine beetle floating on the water surface. Later examination proved that though it was a female, this trechine belonged to a species theretofore unrecorded from Japan and possibly new to science. Since the winter is long in eastern Hokkaido, additional specimens of the trechine beetle were sought in warmer seasons of the next year, and in this survey, Nishikawa collected another species of trechine beetle, which looked like a new member of the group of *Trechus hashimotoi*. On the other hand, Kubota who looked for larvae of donaciine chrysomelids, unexpectedly dug out a second specimen, male, of the first species from the sphagnous edge of a bog. And thus, two different species of unrecorded trechine beetles came to my hands at the same time from the Kushiro Moor.

In the summer of the same year, I had an opportunity to visit the Institute of Biology and Pedology at Vladivostok and to see the collection of ground beetles from the Russian Far East. It contained the type series of an *Epaphius* recently described by Lafer (1989, p. 142, fig. 87–2) under the name *E. plutenkoi*. One of the Kushiro

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trechines agreed with this species, though it was obviously larger than the continental examples and differed from the latter in several minor details. After a careful comparative study, I have come to the conclusion that they represent two geographical races of the same species.

In the present paper, I am going to introduce the two trechine beetles from the Kushiro Moor into science. The first species, which is fully winged, will be named *Trechus* (*Epaphius*) *plutenkoi kushironis*, and the second *T.* (*E.*) *pirica*. The abbreviations used herein are the same as those explained in previous papers of mine.

Before going further, I wish to express my indebtedness to Professor Masataka SATÔ, Professor Yoshiaki NISHIKAWA, and Messrs. Masato HINAKURA, Masahide KUBOTA, Akira NISHIYAMA and Minoru TAO for their kindness in submitting their collections to me for taxonomic study. Hearty thanks should also be expressed to Dr. G. Sh. LAFER of the Institute of Biology and Pedology, Vladivostok, for his kind collaboration in allowing me to examine the rich collection of the East Siberian Trechinae preserved in his Institute, and in giving our museum a paratype of *Epaphius plutenkoi*, which was indispensable for drawing the conclusion given in the present paper.

Trechus* (*Epaphius*) *plutenkoi kushironis S. UÉNO, subsp. nov.

(Figs. 1–3)

Length: 4.15–4.20 mm (from apical margin of clypeus to apices of elytra).

Distinguished from the nominotypical subspecies (LAFER, 1989, p. 142, fig. 87–2) from the Russian Far East by being larger, larger eyes, longer antennae, more obtuse hind angles and deeper basal foveae of pronotum.

Colour reddish brown with somewhat lighter and faintly iridescent elytra, shiny; palpi and legs yellowish brown. Fully winged.

Head small, transverse, with deep frontal furrows very obtusely subangulate at middle and widely divergent behind; frons gently convex, supraorbital areas depressed; microsculpture distinct, mostly consisting of isodiametric meshes; eyes fairly large and moderately convex; genae short, about two-fifths as long as eyes, and strongly convergent towards deep neck constriction; neck fairly wide; supraorbital pores situated on lines divergent behind, the anterior pair foveolate; labrum short, with the apical margin nearly straight at middle; mandibles stout though acutely hooked at the apices; mentum tooth rather small, with the tip obtusely bifid; palpi fairly slender though not long; antennae also fairly slender, reaching basal two-fifths of elytra in ♂, a little shorter than that in ♀, segment 2 the shortest, about 4/5 as long as one of the segments 3–10, which are subequal in length to one another though slightly dilated apicad, each about 3 times as long as wide, terminal segment the longest, longer but evidently narrower than scape.

Pronotum fairly large, transverse, widest at about three-fifths from base, and more strongly narrowed towards apex than towards base; PW/HW 1.33 in the holotype

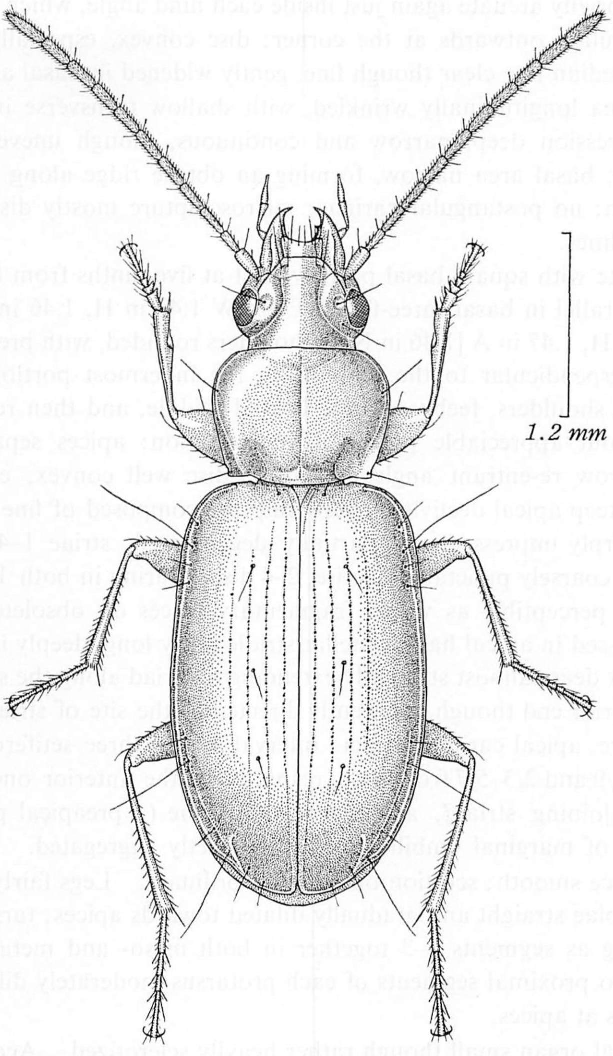


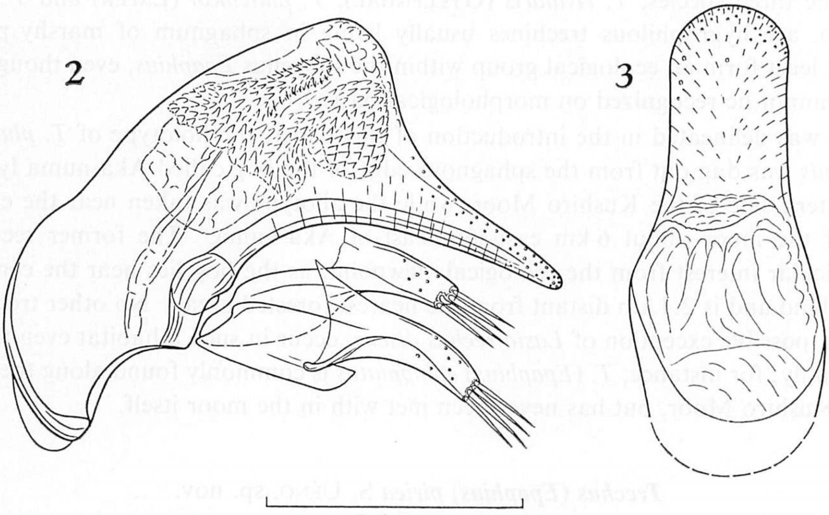
Fig. 1. *Trechus* (*Epaphius*) *plutenkoi kushironis* S. UÉNO, subsp. nov., ♂, from Aka-numa of the Kushiro Moor.

(H), 1.40 in the allotype (A) [1.36 in a paratype of the nominotypical subspecies (NS)], PW/PL 1.33 in H, 1.40 in A [1.41 in NS], PW/PA 1.52 in H, 1.53 in A [1.49 in NS], PW/PB 1.25 in H, 1.26 in A [1.25 in NS]; sides widely and rather strongly arcuate in front, more feebly so behind to hind angles and devoid of ante-basal sinuation, narrowly bordered in front but the borders become widened in basal third and widely reflexed near hind angles; apex slightly arcuate or bisinuate, with front angles rounded and not produced; base evidently wider than apex, PB/PA 1.22 in H, 1.21 in A [1.20 in NS], either straight or slightly arcuate at the median part, shallowly emarginate on each side, and briefly arcuate again just inside each hind angle, which is obtuse though obtusely denticulate outwards at the corner; disc convex, especially at the antero-lateral parts, median line clear though fine, gently widened in basal area and reaching base; apical area longitudinally wrinkled, with shallow transverse impression; basal transverse impression deep, narrow and continuous, though uneven; basal foveae large and deep; basal area narrow, forming an obtuse ridge along the median part of basal margin; no postangular carinae; microsculpture mostly distinct, formed by fine transverse lines.

Elytra ovate with square basal parts, widest at five-ninths from bases though the sides are subparallel in basal three-fifths; EW/PW 1.43 in H, 1.46 in A [1.49 in NS], EL/EW 1.54 in H, 1.47 in A [1.46 in NS]; shoulders rounded, with prehumeral borders arcuate and perpendicular to the mid-line at the innermost portions; sides almost straight behind shoulders, feebly arcuate behind middle, and then regularly rounded to apices without appreciable preapical emargination; apices separately rounded, forming a narrow re-entrant angle at suture; disc well convex, especially behind middle, with steep apical declivity; microsculpture composed of fine transverse lines, though not sharply impressed and partially degenerated; striae 1–4 distinct on the disc and rather coarsely punctate, 1 entire, 2–4 disappearing in both basal and apical parts, 5 either perceptible as vague fragmentary traces or obsolete, 6–7 vanished, 8 deeply impressed in apical half; scutellar striole fairly long, deeply impressed; apical striole short but deep, almost straightly extending anteriad along the side margin, and free at the anterior end though apparently directed to the site of stria 7; intervals flat even near suture, apical carina distinct; interval 3 with three setiferous dorsal pores at about 2/11, 4/9 and 2/3–5/7 from base, respectively, the anterior one on stria 3, the middle one adjoining stria 3, and the posterior one (=preapical pore) on interval 3; humeral set of marginal umbilicate pores perfectly aggregated.

Ventral surface smooth; setation on sternites ordinary. Legs fairly slender though not long; protibiae straight and gradually dilated towards apices; tarsi short, segment 1 about as long as segments 2–3 together in both meso- and metatarsi, segment 4 small; in ♂, two proximal segments of each protarsus moderately dilated and stoutly spurred inwards at apices.

Male genital organ small though rather heavily sclerotized. Aedeagus only one-fourth as long as elytra, robust, about as high as wide, hardly arcuate in basal half but strongly bent behind middle, and straightly extending into apical lobe, which is very broad, parallel-sided and widely rounded at the apex in dorsal view, abruptly narrowed behind apical orifice and gradually tapered towards blunt apex in lateral view; apical orifice large and very steep, with lateral margins strongly convex in profile; basal part large and globular, with rather small basal orifice whose sides are moderately emarginate; sagittal aileron small and hyaline. Inner sac scaly in apical two-thirds, sclerotization of scales being mostly poor though partially moderate; no differentiated copulatory piece. Styles with lightly arcuate apical parts, left style obviously longer than the right, each bearing four short stout setae at the apex.



Figs. 2–3. Male genitalia of *Trechus* (*Epaphius*) *plutenkoi kushironis* S. Uéno, subsp. nov., from Aka-numa of the Kushiro Moor; left lateral view (2), and apical part of aedeagus, dorso-apical view (3).

Type series. Holotype: ♂, Aka-numa, 27–VII–1991, M. Kubota leg. Allotype: ♀, Iwabokki, 26–VIII–1990, M. Satô leg. Both deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Type locality. Kushiro Moor (Aka-numa in Tsurui-mura and Iwabokki in Kushiro-chô), in eastern Hokkaido, Northeast Japan.

Notes. It seems certain that the present trechine is conspecific with the continental one, since they are not only similar to each other in external morphology but have perfectly identical male genitalia. Lafer failed in describing the latter and besides, his description of external features is too concise as it was given in a key to the East Siberian species of the (sub)genus. I have examined the male genitalia of a paratype of *Epaphius plutenkoi* from Korfovskij in Khabarovskij Kray, and found that they are the same as those described and illustrated in this paper from the holotype of *T.* (*E.*) *plutenkoi kushironis*, except, of course, for the size, which is smaller than that of the latter in correlation with the difference in body size. Incidentally, the body length of the paratype examined is 3.65 mm from the apical margin of clypeus to the apices of elytra; Lafer's measurement (3.9–4.1 mm) seems to include mandibles, and therefore gives larger values than mine.

According to Jeannel's classification (1962, p. 175), *T. plutenkoi* belongs to his subgenus *Epaphiolus*. However, as was suggested by myself (Uéno, 1984, p. 139) and was suppressed by Casale and Laneyrie (1982, p. 79), this subgenus is not sharply defined in morphological features and cannot be maintained as a taxon. On the other hand, the three species, *T. rivularis* (GYLLENHAL), *T. plutenkoi* (LAFER) and *T. sugai* S. UÉNO, are hygrophilous trechines usually living in sphagnum of marshy places. They at least form an ecological group within the subgenus *Epaphius*, even though this group cannot be recognized on morphological basis.

As was delineated in the introduction of this paper, the holotype of *T. plutenkoi kushironis* was dug out from the sphagnous edge of the bog called Aka-numa lying at the western side of the Kushiro Moor, while the allotype was taken near the eastern edge of the moor about 6 km east-southeast of Aka-numa. The former record is of particular interest from the ecological viewpoint, as the bog lies near the centre of the wetland and is 2.4 km distant from the nearest forested area. No other trechines, with the possible exception of *Lasiotrechus discus*, occur in such a habitat even though they can fly; for instance, *T.* (*Epaphius*) *ephippiatus* is commonly found along the edges of the Kushiro Moor, but has never been met with in the moor itself.

Trechus* (*Epaphius*) *pirica S. UÉNO, sp. nov.

(Figs. 4–6)

Length: 3.00–3.25 mm (from apical margin of clypeus to apices of elytra).

Closely similar in external morphology to *T. acco* S. UÉNO (1991, p. 107, figs. 2–3) from Mt. Shirikoma-daké in northern Hokkaido, but the pronotal sides are less strongly and less widely arcuate in front and more gradually convergent towards base, and the elytra are more elongate on an average and bear three distinct striae instead of four. Markedly different from the northern species in the configuration of male genitalia, especially of the left aedeagal wall and copulatory piece.

Colour as in *T. acco*, light reddish brown with paler appendages. Head as in *T. acco*, but the genae are shorter (one-fifth to one-third as long as eyes), hardly convex, and more rapidly constricted behind, and the antennae are a little longer, reaching basal two-sevenths of elytra even in ♀, with segments 7–10 each nearly 2.5 times as long as wide. Pronotum similar to that of *T. acco*, but the sides are more narrowly arcuate in front and more feebly so behind the widest part, with more obtuse hind angles; PW/HW 1.24–1.34 (M 1.29), PW/PL 1.36–1.47 (M 1.41), PW/PA 1.35–1.46 (M 1.42), PW/PB 1.21–1.28 (M 1.25), PB/PA 1.06–1.21 (M 1.13). Elytra usually more elongate than in *T. acco*, widest at about middle and a little more gradually narrowed towards bases than towards apices; EW/PW 1.43–1.52 (M 1.47), EL/EW 1.43–1.51 (M 1.47); sides more feebly arcuate before the middle and more narrowly rounded at apices than in *T. acco*; disc often depressed in basal two-thirds; striae 1–3 more or less distinct at least on the disc and clearly punctate, 1–2 usually entire and rather deeply impressed, 3 often shallower than the inner two and usually obsolete near base, 4 usually traceable though shallower than the inner and often fragmentary, 5 vestigial, sometimes perceptible only as a row of very fine punctures, 6–7 obsolete though sometimes represented by rows of microscopical punctures, 8 deeply impressed in apical half; scutellar and apical strioles similar to those in *T. acco*; chaetotaxy as

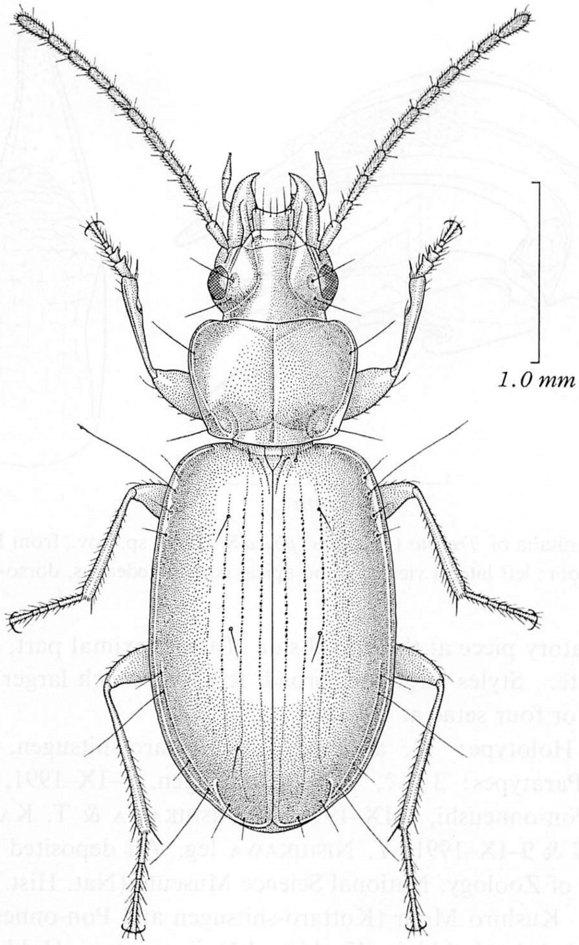
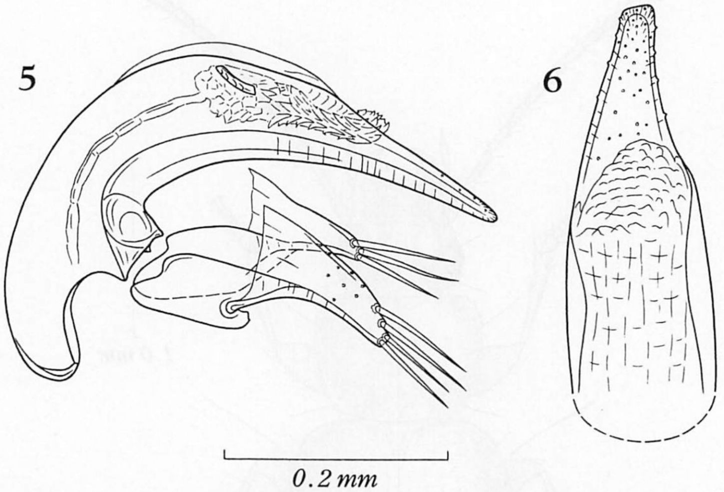


Fig. 4. *Trechus* (*Epaphius*) *pirica* S. UÉNO, sp. nov., ♂, from Kottaro-shitsugen of the Kushiro Moor.

in *T. acco*, though the preapical pore is sometimes missing. Ventral surface and legs as in *T. acco*.

Male genital organ small though moderately sclerotized except for the dorsal parts of aedeagal lateral walls. Aedeagus a little less than one-fourth as long as elytra, moderately depressed, strongly arcuate in basal half but only feebly so in apical half, with the dorsal margin semicircularly rounded in basal two-thirds in profile; dorsum widely open, membraneous to above basal part, which is strongly bent ventrad and deeply emarginate at the sides of basal orifice; sagittal aileron absent; apical lobe long and almost straight, gradually narrowed towards apex, which is obliquely subtruncated in dorsal view and obtusely pointed in lateral view; left aedeagal wall not emarginate at the side of apical orifice; ventral margin widely emarginate at middle in profile. Inner sac covered with scales and teeth, which are not heavily sclerotized, and provided



Figs. 5–6. Male genitalia of *Trechus* (*Epaphius*) *pirica* S. UÉNO, sp. nov., from Pon-onneushi of the Kushiro Moor; left lateral view (5), and apical part of aedeagus, dorso-apical view (6).

with a small copulatory piece at the dorsal side of the proximal part, which is narrow and dorsally arcuate. Styles large and broad, left style much larger than the right, each bearing three or four setae at the apex.

Type series. Holotype: ♂, allotype: ♀, Kottaro-shitsugen, 7–IX–1991, Y. NISHIKAWA leg. Paratypes: 3 ♂♂, Kottaro-shitsugen, 7–IX–1991, Y. NISHIKAWA leg.; 2 ♂♂, 1 ♀, Pon-onneushi, 8–IX–1991, Y. NISHIKAWA & T. KAMURA leg.; 1 ♂, 3 ♀♀, Iwabokki, 7 & 9–IX–1991, Y. NISHIKAWA leg. All deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Type locality. Kushiro Moor (Kottaro-shitsugen and Pon-onneushi by Tôro-ko in Shibecha-chô, and Iwabokki in Kushiro-chô), in eastern Hokkaido, Northeast Japan.

Further specimens examined. 1 ♀, Ochiishi, Nemuro-shi, 13–VIII–1988, M. HINAKURA leg. (found in a baited trap set by M. HINAKURA on 24–VII–1988) (NSMT); 3 ♀♀ (all teneral), Nakaonbetsu, Onbetsu-chô, 11–VII–1991, M. TAO leg. (NSMT).

Notes. It was most unexpected that a member of the group of *T. hashimotoi* did occur in eastern Hokkaido and what is more, in marshy places of the plains. As was demonstrated in a former paper of mine (UÉNO, 1991, pp. 105–106), all the four, previously known species of this group are localized in a narrow area stretching along the western side of northern Hokkaido. Two of them are alpine species, while the other two, which are restricted to the northernmost part, inhabit birch forests at slight elevations. At the southern side of their territory, *T. nakaguroi* of a different species-group is distributed from the Daisetsu Mountains in the west to the Shiretoko Peninsula in the east, and so far as has been known, it does not coexist with any species of the *hashimotoi* group. This means that the distributional range of *T. pirica* is isolated from those of the other species of the same group.

Trechus pirica is also different from its relatives in its habitat. It is true that the trechine is in a way humicolous, since it lives under dead fallen reeds or dead leaves of other plants, but its occurrence is always in open marshy fields, not in dim shaded forest floors as in the case of the other species. On the other hand, it is not so highly hygrophilous as to become sphagnicolous, so that it does not penetrate deep into wetlands. Differing from many other paludicolous carabids, this trechine beetle is flightless and does not appear to have highly adapted to existence in seasonally flooded areas.

In the Kushiro Moor, *T. pirica* has so far been known only from three spots at the eastern side within a distance of 12 km. All lie near the sea-level; even the highest of the three, Kottaro-shitsugen, is only 8 m in altitude. The beetle lives among the roots of reeds, and can be found by sifting or drowning.

The specimen from Ochiishi, which is about 84 km east of the eastern edge of the Kushiro Moor, is slightly different from the type series in its broad hind body and relatively clear 4th stria of the elytra, but otherwise agrees well with the latter. It measures 3.05 mm in body length, and has the following standard ratios of body parts: PW/HW 1.34, PW/PL 1.45, PW/PA 1.45, PW/PB 1.31, PB/PA 1.11, EW/PW 1.49, EL/EW 1.36. Since all the known three are very teneral, it is impossible to take exact measurements of the specimens from Nakaonbetsu, which is about 29 km distant to the west-southwest from the southwestern corner of the Kushiro Moor. However, their body length measures 3.05–3.15 mm.

The specific name *pirica* is derived from "pirika," which means pretty or lovely in the Ainu language.

要　約

上野俊一: 釧路湿原産キイロチビゴミムシ亜属の1新種と1新亜種. —— 釧路湿原のゴミムシ相は，これまでにもしばしば調査されたが，固有のチビゴミムシが見つかったことはなかった．しかし，最近になって，日本から記録のない2種があいついで発見された．ともにキイロチビゴミムシ亜属 *Epaphius* の種で，一方は有翅，他方は無翅である．

有翅種は極端な好湿性で，ミズゴケのなかにすむ．ロシア極東地方の同じような環境に生息する，*Trechus* (*Epaphius*) *plutenkoi* (Lafer) によく一致するが，からだが大きいうえに若干の形態的差異も認められるので，その新亜種と認めて，クシロチビゴミムシ *T.* (*E.*) *plutenkoi kushironis* S. Uéno と命名した．これまで採集されなかったのは，その特殊な生息環境のためだろう．有翅種でありながら分布が限られているのも，同じ理由によるものと思われる．

無翅種のほうは，これまで道北地方の西側のみから知られていたショカンベツチビゴミムシ種群に属する新種で，ピリカチビゴミムシ *T.* (*E.*) *pirica* S. Uéno と命名し記載した．この種群のチビゴミムシ類は，高山帯や北海道の最北部で，カバ林の林床に生息することがわかっていたが，その一種であるピリカチビゴミムシが，ダイセツチビゴミムシの分布域によって隔離された太平洋側の地域に分布し，しかも開けた低湿地の，倒伏したアシの茎や枯れ葉の下などに生息することは，たいへん興味深い．

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Elytra, Tokyo, **20** (1): 10, May 15, 1992

The Staphylinid Beetles New y Recorded from Okushiri-tô Island, off Southwestern Hokkaido

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Only one species, *Paederus fuscipes* Curtis, has hitherto been reported from Okushiri-tô Island, which is about 61 km distant to the southwest from the nearest coast of the Oshima Peninsula of Hokkaido. Through the courtesy of Mr. T. Maenami, three species of staphylinid beetles were given to me, all new to the fauna of this island, as recorded below. They were collected by Tetsuya Maenami at Tamaura of Okushiri-tô Island on July 12, 1964. I thank him for his kindness in giving me the specimens.

1. *Stenus* (*Stenus*) *alienus* Sharp, 1 ♂.
2. *Astenus suffusus* (Sharp), 1 ♀.
3. *Philonthus wuesthoffi* Bernhauer, 1 ♀.

Elytra, Tokyo, **20** (1): 11–14, May 15, 1992

A Critical Note on the Description of *Ishidaterechus jianensis* LI et CHEN (Coleoptera, Carabidae)

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Abstract LI and CHEN's description of *Ishidaterechus jianensis* is criticized. It is concluded that the species belongs neither to *Ishidatrechus* nor to its close relatives, even if it could be a member of the Trechinae.

A new scientific journal was recently founded at Changchun in Northeast China. It is the natural science series of the "Journal of Northeast Normal University," the first number of which is said to have been published in May 1990, though it has not reached our hands until quite recently. This number is devoted to the so-called "regional ecological geography" and collects 28 papers on various subjects of soil zoology. The seventh of these articles is entitled "The geographical distribution of soil beetles in Jilin Province" and was written by collaboration of five authors, CHEN Peng, LI Jingke, YIN Xinqin, ZHONG Weiyan and ZHAO Hongyin. Its main subject is to record 136 species of beetles from Jilin Province with their collecting data, but the paper also contains descriptions of 4 "new species," *Ishidaterechus* [sic] *jianensis* (p. 61), *Domene chenpengi* (p. 66), *Lathrobium jingyuetanicus* (p. 67), and *Indalus* [sic] *hanconglingensis* (p. 72). The authorship of the first and third species is attributed to LI and CHEN, while that of the second and fourth to LI alone, but I strongly suspect that all the descriptions were actually prepared by LI Jingke.

As is readily known from the fact that two of the four generic names involved are misspelled, their descriptions are extremely poor and quite inadequate for depicting diagnostic characters of the so-called "new species." Besides, I cannot but strongly doubt the accuracy of identification of many of the species listed. For example, *Dyschirius igai* is recorded from the western suburbs of Changchun (p. 61), but since this small scaritine is an apterous humicolous species strictly localized on mountains of Southwest Japan, its occurrence in Northeast China is not possible unless artificially transplanted. In short, I cannot help expressing, with much regret, that the authors or one of the authors is incompetent as a taxonomist of the Coleoptera.

It is not the purpose of this paper to check the descriptions of all the four species described by LI and CHEN. To do it is beyond my ability, even though all seem to me very insufficient and erroneous. What I am going to take up here is the description of a so-called trechine beetle, *Ishidaterechus jianensis*, which comes in my specialty. In the first place, I will reproduce its original description followed by its English translation below.

(p. 61)

※4 . *Ishidaterechvs jianensis sp*.nov.Li.et Chen

体长3.0mm。全体红褐色，足暗红褐色.体近似日本产 I.kobayashii S.Veno。但前胸背板后半部与前半部相比不显著变窄．头部两侧近平行，长度与前胸背板近于相等，背面有细微的横皱状刻纹．头部背面中央纵隆起，两侧在触角基部之间纵凹陷．两触角基部的头背中央部有一浅横沟．触角后方的头侧部有 2 根长刚毛．触角伸达鞘翅的肩部后方．前胸背板向后方渐变窄，前角钝圆，前缘较直稍内凹，侧缘边明显深色，后角直角，有一根长刚毛，后缘直线状．前胸背板中央，尤其是在后半部，有一明显的纵沟，另外，在前角稍后方处也有一根长刚毛．鞘翅肩部具有 4 个等距离刚毛点，鞘翅上的纵沟仅在会合缝处有 2 条较完整，其余的在中央部消失．小盾片缩小在鞘翅缝中看不见。

(p. 62)

正模1♀，1989.Ⅵ.2，吉林省集安市榆林乡，杂木林。苏志刚采.

Ishidaterechus属是真正的洞穴性或土栖性甲虫．文献记载仅分布日本。

Ishidaterechvs [sic] *jianensis sp*. [sic] nov. LI. [sic] et CHEN

Body 3.0 mm in length. Whole body brown, legs dark brown. Body form similar to [that of] *I. kobayashii* S. VENO [sic], but the pronotum is not much less narrowed in posterior half than in anterior half. Both sides of head nearly parallel, its length nearly equal to [that of] pronotum, with minute transverse wrinkles on the dorsal surface. Dorsal surface of head longitudinally convex in middle, and longitudinally concave on each side between the insertions of antennae. Frons with a shallow transverse furrow at the middle between the bases of antennae. Lateral parts of head each with 2 long setae behind antenna. Antennae extending to behind shoulders of elytra. Pronotum gradually narrowed towards the posterior part, front angles obtuse and rounded, apex almost straight and slightly emarginate, lateral borders evidently darkened at the edges, hind angles rectangular, each with a long seta, base rectilinear. Pronotal disc with a distinct longitudinal furrow, especially in posterior half, and besides, a long seta present a little behind each front angle. Elytra with 4 equidistantly ranged umbilicate pores at the humeral part, only 2 dorsal longitudinal furrows near suture almost complete, others disappearing even at middle. Scutellum reduced and not perceptible though present on the suture of elytra.

Holotype 1 ♀, 2. VI. 1989, Yu-lin Xiang, Ji-an Shi, Ji-lin Sheng, coppice, collected by SU Zhigang.

The genus *Ishidaterechus* [sic] comprises either troglobiontic or soil-living beetles. According to literature, it is distributed only in Japan.

Though not exceedingly short, this description informs us of almost nothing of taxonomic importance. It does not mention anything about pubescence on the body surface, condition of eyes and frontal furrows, structure of buccal organ, details of elytral striation and chaetotaxy, and conformation of protibiae, all of which bear primary importance in classifying trechine beetles. Besides, the authors do not appear to have seen any of the important literature dealing with *Ishidatrechus* (not "*Ishidaterechus*," of course) and its close relatives (Uéno, 1956, 1987, 1989; Jeannel, 1962; Casale & Laneyrie, 1982), and may have placed their species at the side of *Suzuka kobayashii* only because of similarity in body form, which they may have judged from my illustration of the Japanese species given in the second volume of "The Coleoptera of Japan in Color" (1985, pl. 16, fig. 19). If they had seen my 1989 paper, they should have known that *kobayashii* is now classified in an independent genus, *Suzuka*, and that the genus *Ishidatrechus* is restricted to its type species, *nitidus*.

On the other hand, several parts of their description clearly deny the possibility that the species belongs to either *Ishidatrechus* or *Suzuka*. In these Japanese genera, the humeral set of marginal umbilicate pores is not aggregated, both the front and hind angles of pronotum are acute and salient, and the pronotal base is distinctly emarginate , while in "*I.*" *jianensis*, the four pores of the humeral set of marginal umbilicate pores are "equidistantly ranged," the front angles of pronotum are "obtuse and rounded," the hind angles are "rectangular," and the pronotal base is "rectilinear." Further, the legs of "*I.*" *jianensis* are said to be darker in coloration than the body, but in most trechines including *Suzuka* and its relatives, the legs are more or less lighter than the body or concolorous with the latter at the most.

Thus, "*I.*" *jianensis* is not a member of the *Ishidatrechus* lineage. If its description were accompanied with illustrations, we could know something more about the beetle. From the poor description alone, however, it is impossible even to assume its identity. It may belong to the subfamily Trechinae, but its true systematic position remains unknown until the type specimen is re-examined by an experienced specialist. Incidentally, an undescribed name, *Ishidatrechus yulinsis* Chen et Li (p. 41) or *Ishidatrechs* [sic] *Yulinsis* [sic] (p. 44), appears in the fifth article of the same journal. If it is a relative of "*I.*" *jianensis*, it is doubtlessly not a member of the *Ishidatrechus* lineage, either.

In closing this brief paper, I wish to express my deep indebtedness to Dr. Yûki Imura and Mr. Seiji Morita for kindly notifying me of the publication of the new journal in question, and to Professor Gentaro Imadaté and Dr. Shi Jialan for their kind help in checking my translation of the Chinese original description of *Ishidaterechus jianensis*.

要　約

上野俊一: *Ishidaterechus jianensis* の記載に対する批判. —— 1990 年 5 月に出版された东北师大

学报自然科学版の第1号に，李 景科と陈 鹏の共著で発表された*Ishidaterechus jianensis*の記載を綿密に検討した結果，たとえこの種がチビゴミムシ亜科に属するものだとしても，*Ishidatrechus*や近縁の*Suzuka*とはまったく無関係であることが明らかになった．ただし，チビゴミムシ類の分類には不可欠な特徴の記述がほとんどすべて欠落しているうえに，全形図も部分図もつけられていないので，その正体を推定することはできない．必要な文献さえ参照せずに当て推量で新種を記載するような行為は，分類学以前の問題として糾弾されるべきである．この一文には，問題の種の処遇に関する見解を示すことのほかに，不見識な著者に対する強い警告の意味もこめられている．

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Elytra, Tokyo, **20** (1): 15–19, May 15, 1992

A New Subgenus and Species of *Pterostichus* (Coleoptera, Carabidae) from Aomori Prefecture, North Japan

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Abstract A new pterostichine carabid beetle, *Pterostichus yamauchii* sp. nov., is described from Aomori Prefecture, North Japan. A new subgenus, *Abea*, is erected for this new species. It is mainly characterized by loss of setiferous dorsal pore on the interval 3 and of basal pore on the elytron.

In the present paper, I am going to describe a new small-sized pterostichine carabid beetle, which was discovered in the subalpine zone of the Hakkôda Mountains, at the northern part of the Tôhoku District in North Japan. This new species is very peculiar mainly in the loss of setiferous dorsal pore and of basal pore on the elytra. Therefore, this species had better be separated from the other members of the grand genus *Pterostichus* in its own subgenus. It will be described below under the name of *Pterostichus* (*Abea*) *yamauchii*.

The abbreviations used herein are as follows: HW–greatest width of head; PW–greatest width of pronotum; PL–length of pronotum, measured along the median line; PA–width of pronotal apex; PB–width of pronotal base; EW–greatest width of elytra; EL–greatest length of elytra; TL–length of hind tarsus; M–arithmetic mean.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for critically reading the original manuscript of this paper. My thanks are also due to Messrs. Azuma ABE, Shigehiko SHIYAKE and Satoshi YAMAUCHI for their kind help.

Subgenus *Abea* MORITA, nov.

Type species: *Pterostichus* (*Abea*) *yamauchii* subgen. et sp. nov.

Description. Body small and convex; apterous.

Head large and convex, with small eyes; tempora swollen; apical margin of labrum almost straight; antennae submoniliform, pubescent from segment 4; segment 2 with a single seta. Pronotum with a single basal fovea on each side. Elytra with neither setiferous pore on interval 3 nor basal pore, and without scutellar striole.

Metepisternum slightly wider than long; anal sternite normal. All tarsal segments smooth on dorsal side, claw segment glabrous below.

Aedeagus short and stout; inner sac with two copulatory pieces, and everting on the left side of aedeagus; left paramere wide and square; right one thick, with apex simply rounded.

Notes. So far as the East Asian groups are concerned, three subgenera are characterized by losing setiferous dorsal pore on interval 3. They are *Stereocerus* KIRBY (1837, p. 34) [=*Boreobia* TSCHITSCHÉRINE (1896, p. 375)], *Licentius* JEDLIČKA (1939, p. 4) and *Carllindrothius* HABU (1984, p. 2). *Abea* is, however, distinguished from these subgenera by combination of the following points: 1) body size, 2) coloration, 3) swollen tempora, 4) loss of basal pore and of scutellar striole on the elytron, and 5) grabrous claw segment.

Incidentally, this chaetotaxial peculiarity of elytron reminds us of *Anilloferonia* VAN DYKE (1926, p. 115) from the Pacific Northwest of North America. Needless to say, there is a very wide geographical gap between *Abea* and *Anilloferonia*. In fact, the latter is different from the former in having reduced eyes or being blind.

The true affinity of *Abea* remains uncertain, as many species of *Pterostichus* have been described without subgeneric assignment.

Pterostichus* (*Abea*) *yamauchii MORITA, sp. nov.

[Japanese name: Aomori-naga-gomimushi]

(Figs. 1–5)

Length: 6.06–6.52 mm (from apical margin of clypeus to apices of elytra).

Body rather robust, with fairly stout appendages. Colour blackish brown, slightly iridescent on elytra; palpi reddish brown; mandibles, labrum, clypeus, antennae, legs, gula, prosternum, metasternum, and apical part of anal sternite dark brown.

Head large and convex, without punctures; PW/HW 1.47–1.54 (M 1.50) in 10 ♂♂, 1.43–1.53 (M 1.49) in 4 ♀♀; frontal furrows short, rather shallow, and moderately divergent posteriad; eyes flat; tempora swollen, about 3/4 as long as eyes; anterior supraorbital seta located at the mid-eye level, posterior one apart from the posterior margin of eye; mentum tooth bifid at the tip; mandibles long, hooked at apices; antennae stout, segments 7–10 ovate, forming submoniliform; relative lengths of antennal segments as follows: I: II: III: IV: V: VI: XI≒1: 0.52: 0.92: 0.81: 0.80: 0.78: 1.08; microsculpture composed of isodiametric meshes on frons but of wide ones on neck.

Pronotum wider than long, PW/PL 1.12–1.21 (M 1.16) in 10 ♂♂, 1.12–1.23 (M 1.18) in 4 ♀♀; PW/PA 1.35–1.42 (M 1.39) in 10 ♂♂, 1.37–1.40 (M 1.39) in 4 ♀♀, PW/PB 1.25–1.38 (M 1.31) in 10 ♂♂, 1.28–1.36 (M 1.31) in 4 ♀♀; apical margin usually weakly emarginate, rarely almost straight, a little narrower than base, PA/PB 0.91–0.98 (M 0.95) in 10 ♂♂, 0.92–0.97 (M 0.95) in 4 ♀♀; sides moderately arcuate and convergent posteriad, rarely very slightly sinuate just before hind angles; apical angles a little advanced at the tips; hind ones slightly produced outwards, usually forming obtuse denticles without carina; base arcuately oblique inside each hind angle, and almost straight at middle; basal foveae small, rather deep and linear at the bottom, a little diverging anteriorly or almost parallel, and sparsely and coarsely punctate;

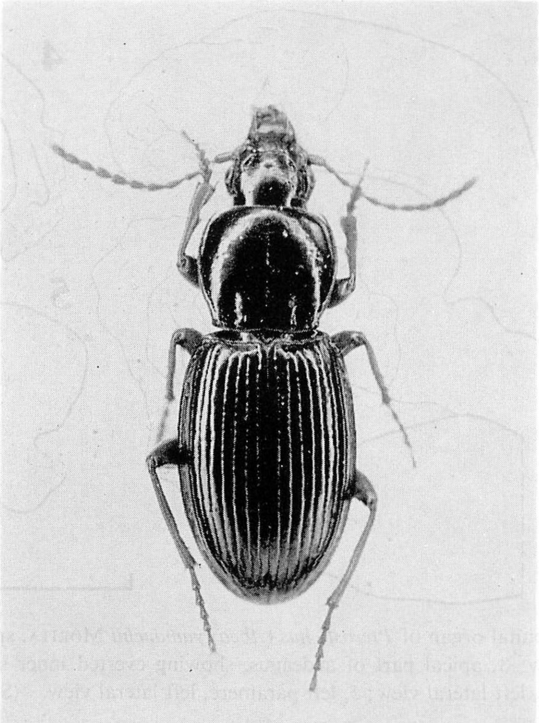
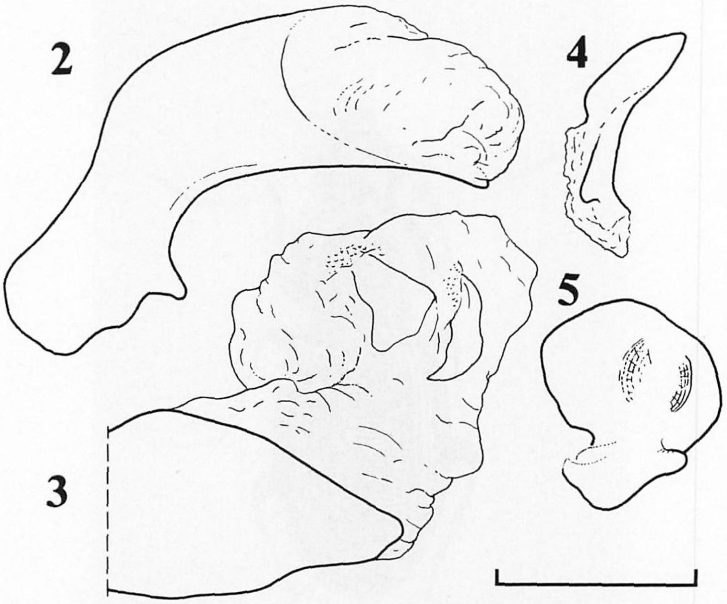


Fig. 1. *Pterostichus* (*Abea*) *yamauchii* MORITA, sp. nov., ♂, from Oodake, Mts. Hakkôda-san, Aomori Prefecture, North Japan.

median line clearly impressed, not reaching apex nor base; anterior marginal setae inserted a little before the widest part, with no additional seta, posterior ones inserted just before and inside hind angles; microsculpture composed of fine transverse lines or meshes but partially disordered.

Elytra ovate and convex, widest at about middle; EW/PW 1.25–1.33 (M 1.28) in 10 ♂♂, 1.27–1.30 (M 1.28) in 4 ♀♀, EL/EW 1.43–1.55 (M 1.50) in 10 ♂♂, 1.45–1.51 (M 1.48) in 4 ♀♀; sides evenly arcuate, usually without preapical emargination; shoulders denticulate; apices usually conjointly rounded, rarely forming a very small re-entrant angle at suture; striae entire, weakly crenulate, but becoming indistinct at apices; intervals slightly convex; inner plica visible; marginal series composed of 13 to 15 pores; microsculpture composed of fine transverse lines and meshes.

Prepisternum, apical part of mesosternum, meso- and metepisternum, sides of metasternum, and sides of sternites 1–3 strongly and coarsely punctate; anal sternite slightly depressed along apical margin; in ♀, anal sternite with two pair of setae which are on a shallow arc open anteriorly.



Figs. 2–5. Male genital organ of *Pterostichus* (*Abea*) *yamauchii* MORITA, sp. nov.; 2, aedeagus, left lateral view; 3, apical part of aedeagus, showing everted inner sac, ventral view; 4, right paramere, left lateral view; 5, left paramere, left lateral view. (Scale: 0.5 mm.)

Legs short and stout; TL/HW 0.83–0.94 (M 0.91) in 11 ♂♂, 0.84–0.91 (M 0.88) in 4 ♀♀.

Aedeagus short and stout; apical part simply rounded in ventral view.

Type series. Holotype: ♂, Oodake, 6–VIII–1988, S. MORITA leg.; allotype: ♀, same data as for the holotype. Paratypes: 1 ♂, Oodake, 11–VIII–1987, A. ABE leg.; 1 ♀, Oodake, 23–VII–1988, S. MORITA leg.; 1 ♂, Oodake, 24–VII–1988, A. ABE & S. YAMAUCHI leg.; 6 ♂♂, 2 ♀♀, Oodake, 6–VIII–1988, S. MORITA leg.; 1 ♂, Oodake, 24–VI–1989, A. ABE leg.; 1 ♂, Tomarizawa, 24–VII–1989, A. ABE leg.; 1 ♂, 1 ♀, Tomarizawa, 25–VII–1989, A. ABE leg.

Localities. Oodake (type locality), Mts. Hakkôdasan; Tomarizawa, Ajigasawa-machi, Aomori Prefecture, North Japan.

The holo- and allotypes are preserved in the National Science Museum (Nat. Hist.), Tokyo. The paratypes are distributed to the above collection and the private collection of the author.

Notes. As was already described in the subgeneric description, this new species is very peculiar in the chaetotaxy of elytra and the swollen tempora. It is easily discriminated from all the other Japanese species. All the materials were found from under stones by mountain trails in deciduous broadleaved forests.

要 約

森田誠司：青森県で採集されたナガゴミムシ属の新亜属新種. —— 青森県で採集された小型のナガゴミムシ *Pterostichus yamauchii* を記載した. 本種は，目のうしろが膨れること，上翅の第3間室の孔点および基部孔点を欠くことで，わが国から知られている種類との識別はやさしい. *Pterostichus* 属の亜属の研究は不充分であるものの，おもに上記の特徴から新亜属 *Abea* を創設した.

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Elytra, Tokyo, **20** (1): 20, May 15, 1992

Pterostichus ishizuchiensis (Coleoptera, Carabidae) in Southwestern Shikoku, West Japan

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More than ten years ago, through the courtesy of Dr. Yûki IMURA, I was able to examine a number of carabid beetles captured by himself. In his collection, I found a peculiar pterostichine carabid beetle obtained in southwestern Shikoku. Though it seemed to belong to a new species, I preferred to refrain from proposing a new name at that time because only a single female was available.

In 1985, a new *Pterostichus* was described by KASAHARA under the name of *P. ishizuchiensis*. Though I had not seen KASAHARA's type material, I was able to determine IMURA's specimen on the basis of the original description. In this short report, I am going to record this rare carabid.

Pterostichus ishizuchiensis KASAHARA

KASAHARA, 1985, Elytra, Tokyo, **13**, pp. 53–57, figs. 4–5.

Specimen examined. 1 ♀, Mt. Yokokura-yama, Ochi-chô, Kôchi Prefecture, 19 & 20–VIII–1980, Y. IMURA leg.

It has the following standard ratios of body parts: PW/HW 1.25, PW/PA 1.25, PW/PB 1.44, PW/PL 1.23, PA/PB 1.15, EW/PW 1.20, EL/EW 1.55.

Finally, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for reading the manuscript of this paper. My thanks are also due to Dr. Yûki IMURA for kindly supplying me with the interesting material.

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Elytra, Tokyo, **20** (1): 21–31, May 15, 1992

Three New Carabid Beetles from Shizuoka Prefecture, Central Honshu, Japan

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Abstract Two new species and a new subspecies of the montane carabid beetles, *Pterostichus* (*Nialoe*) *tahirai* sp. nov., *P.* (*N.*) *rhanis katoi* subsp. nov., and *Trichotichnus* (*Trichotichnus*) *ishikawai* sp. nov., are described from Mt. Ryûtô-zan in Shizuoka Prefecture, Central Japan. All seem restricted to the southernmost part of the Akaishi Mountain Range.

Through the courtesy of Mr. Yoshiaki Tahira, I recently had an opportunity to examine many examples of carabid beetles collected by Mr. Tohru Katô on Mt. Ryûtô-zan in Shizuoka Prefecture, central Honshu, Japan. The collection consists of forty species including many interesting carabids, some of which must be new to science. Mt. Ryûtô-zan (1,351 m alt.) is a small head on the range lying on the left side of the lower part of the River Tenryû-gawa, and is situated at the southernmost part of the Akaishi Mountain Range. The carabid fauna of this area has hitherto been poorly known.

In the last summer, I made a collecting trip to that mountain in collaboration with Mr. Hitoshi Ishikawa, and succeeded in obtaining series of some unnamed forms with many other carabids. In this paper, I will describe two new species and a new subspecies of the genera *Pterostichus* and *Trichotichnus*. The abbreviations used herein are the same as those explained in other papers of mine. All the holo- and allotypes are preserved in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi Uéno of the National Science Museum (Nat. Hist.), Tokyo, for his advice and for reading the manuscript of this paper. Thanks are also due to Messrs. Hitoshi Ishikawa, Tohru Katô and Yoshiaki Tahira for their kind help in materials and field works.

Pterostichus* (*Nialoe*) *tahirai sp. nov.

[Japanese name: Ryûtô-nagagomimushi]

(Figs. 1–3)

Description. Length (measured from apex of labrum to apices of elytra) 15.2–16.7 mm. Width 5.3–5.8 mm. Black, shiny, faintly iridescent on elytra; labrum and mandibles dark reddish brown to blackish; palpi and tarsi reddish brown.

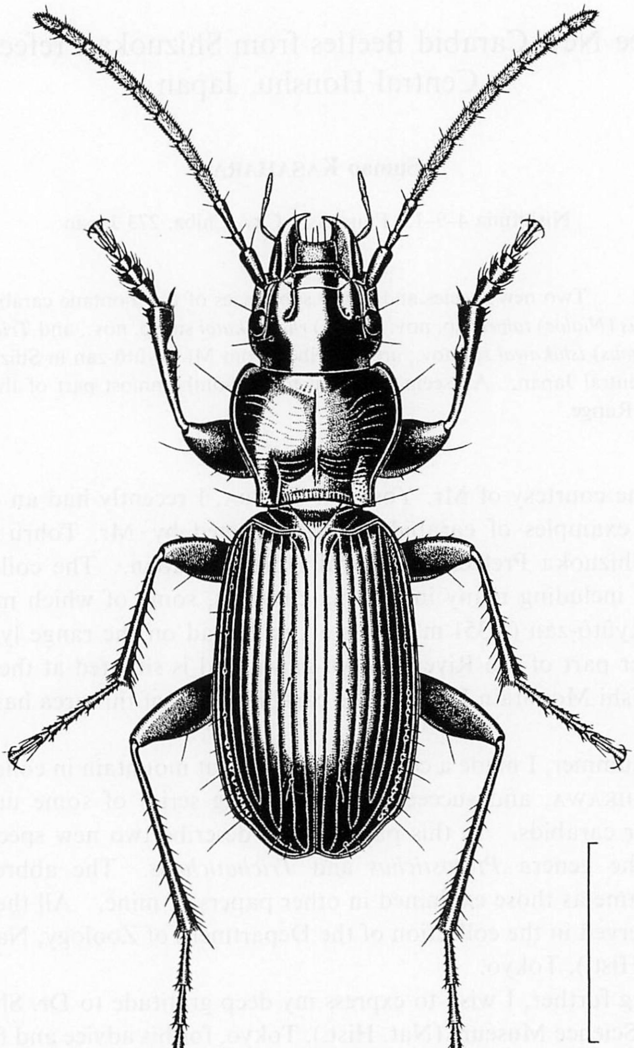


Fig. 1. *Pterostichus* (*Nialoe*) *tahirai* sp. nov., ♂, from Mt. Ryûtô-zan in Shizuoka Pref. Scale 5 mm.

Head moderately convex; eyes convex, more or less prominent; temporae shorter than eyes, swollen; genae rugose; labrum and mandibles normal; clypeus gently emarginate at apex; clypeal suture distinct; frontal furrows deep, with linear impressions at the bottoms, posterior halves divergent, and extending to the mid-eye level; lateral grooves deep, extending to behind the post-eye level; surface smooth, though

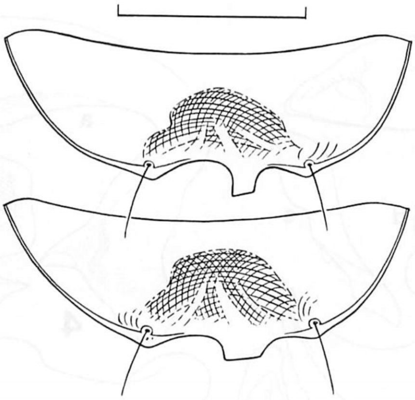
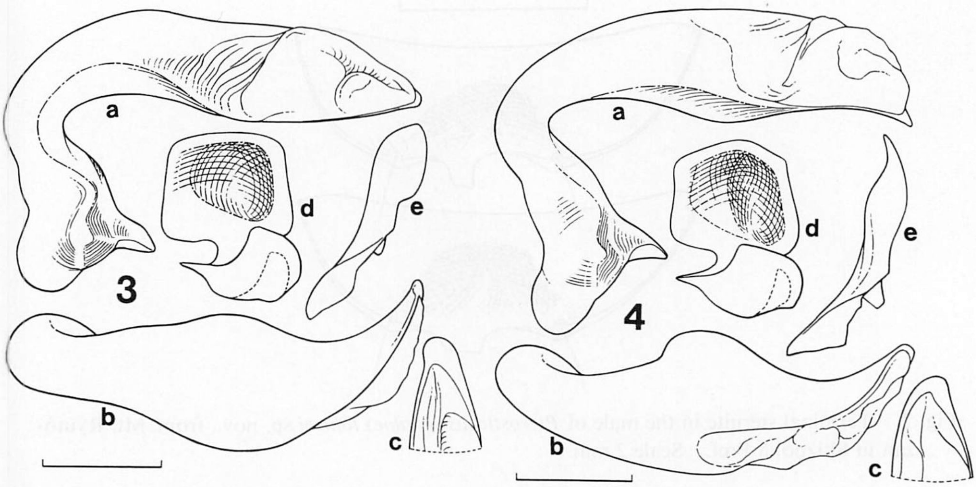


Fig. 2. Terminal sternite in the male of *Pterostichus* (*Nialoe*) *tahirai* sp. nov., from Mt. Ryûtô-zan in Shizuoka Pref. Scale 2 mm.

very minutely and sparsely punctate; microsculpture hardly visible; antennae moderately long, extending to the basal fourth of elytra; relative lengths of scape and segments 2–6 as follows:— 1: 0.5: 0.8: 0.9: 0.8: 0.8; segment 2 plurisetose at apex.

Pronotum cordate, moderately convex, though rather flat on basal part, widest at apical fourth, ca. 1.3 times as wide as head (PW/HW 1.22–1.32, mean 1.27), as wide as long in a similar proportion (PW/PL 1.22–1.31, mean 1.28), about a half as wide again as base (PW/PBW 1.41–1.52, mean 1.45); lateral margins well arcuate, then strongly convergent posteriad, and fully sinuate before base, basal part nearly parallel-sided, or slightly narrowed posteriad; apical margin gently emarginate, not bordered, apical angles somewhat produced, rounded at the tips; basal margin narrower than the apical, weakly emarginate, and somewhat oblique on each side, basal angles almost rectangular, pointed at the tips; median line deeply impressed; basal foveae deep, frontal halves divergent anteriad, the foveae and their outer side punctate; apical and basal transverse depressions generally weak; surface with transverse wrinkles, which are more distinct on basal part than on frontal disc; microsculpture slightly visible, formed by fine transverse meshes.

Apterous. Elytra oblong, gently convex, widest at middle, about a fifth as wide again as pronotum (EW/PW 1.19–1.27, mean 1.22), about one and a half as long again as pronotum (EL/PL 2.36–2.55, mean 2.46), more than a half as long again as wide (EL/EW 1.56–1.62, mean 1.57); basal border curved, obliquely extending to shoulder, and joining lateral border at an obtuse but distinct angle; shoulders rounded; lateral margins evenly and gently arcuate from behind shoulders to preapical parts, then rather abruptly convergent posteriad, and forming relatively distinct preapical emarginations; apex of each elytron rounded, its sutural angle often obtusely angulate, though sometimes rounded; scutellar striole short, lying on interval 1, and connected with basal border; striae strongly impressed throughout, smooth; intervals gently



Figs. 3–4. Male genitalia of *Pterostichus* (*Nialoe*) spp. —— 3, *P.* (*N.*) *tahirai* sp. nov., from Mt. Ryûtô-zan in Shizuoka Pref.; 4, *P.* (*N.*) *katashinensis naganoensis* TANAKA, from Mt. Yatsugatake in Nagano Pref.; a–c, aedeagus; a, left lateral view; b, dorsal view; c, apical part in dorsal view; d, left paramere; e, right paramere. Scale 1 mm; c, ×1.5.

convex; interval 3 with four to six (rarely three) dorsal pores, anterior one adjoining stria 3 at basal fourth, remainings adjoining stria 2, and irregularly arranged at about middle to apical fifth, respectively; marginal series of pores 16–20 in number, widely spaced at middle; microsculpture slightly visible, formed by very fine transverse meshes. Basal three segments of meso- and metatarsi externally sulcate.

Ventral side almost smooth, though the mesepisterna are punctate; prosternal process weakly depressed at middle, not bordered; in the male, terminal sternite deeply excavated in apical two-thirds, its apical margin deeply bi-emarginate, and with a quadrate projection, which is rather variable in proportion, generally as wide as long but sometimes distinctly wider than long.

Aedeagus strongly bent at basal third, then almost straightly extending to apex in lateral view, widening at apical third, with the apical part distinctly bent rightwards in dorsal view; apical lobe a little wider than long, slightly enlarged rightwards, rounded at apex; left paramere square, subtruncate at apex; right one thick, rather pointed but blunt at apex.

Type series. Holotype: ♂, Mt. Ryûtô-zan, Haruno-chô, Shizuoka Pref., 7–VIII–1988, T. KATÔ leg.; allotype: ♀, same data as for the holotype. Paratypes: 1 ♂, 2 ♀♀, same data as for the holotype; 1 ♂, same locality as for the holotype, 6–VIII–1988, T. KATÔ leg.; 2 ♂♂, 4 ♀♀, same locality, 9–VIII–1988, T. KATÔ leg.; 1 ♂, same locality, 25–VI–1989, H. MATSUMOTO leg.; 2 ♂♂, same locality, 16–VII–1989, T. KATÔ leg.; 4 ♂♂, 7 ♀♀, Mt. Ryûtô-zan, Sakuma-chô, Shizuoka Pref., 26 ~ 27–VII–1991, S. KASAHARA & H. ISHIKAWA leg.; 2 ♂♂, 1 ♀, same locality, 27–VII–1991, S. KASAHARA

& H. Ishikawa leg.; 15 ♂♂, 11 ♀♀, same locality, 27∼28–VII–1991, S. Kasahara & H. Ishikawa leg.; 2 ♂♂, 3 ♀♀, same locality, 28–VII–1991, H. Ishikawa leg.

Other specimens examined. 4 ♂♂, 4 ♀♀, Mt. Sobatsubu-yama, Nakakawane-chô, Shizuoka Pref., 25∼26–VII–1991, S. Kasahara & H. Ishikawa leg.

Notes. Though the present new species is rather similar to *P.* (*N.*) *asymmetricus* Bates in general appearance, it may be related to *P.* (*N.*) *katashinensis* Habu in view of the conformation of both the terminal sternite and genitalia in the male. It is, however, easily distinguished from the latter and its subspecies *naganoensis* Tanaka by less convex body with more cordate prothorax and clearly different configuration of the genitalia in the male. The specific name is given after Mr. Yoshiaki Tahira, who is keenly studying the coleopteran fauna of Shizuoka Prefecture.

***Pterostichus* (*Nialoe*) *rhanis katoi* subsp. nov.**

(Figs. 5–7)

Description. Smaller than *P.* (*N.*) *rhanis angustistylis* Tanaka from Mt. Fuji-san and Hakone. Length (measured as in the preceding species) 12.3–13.8 mm. Width 4.5–4.9 mm. Black, shiny, elytra subopaque in the female; labrum, mandibles and appendages reddish brown to dark reddish brown or blackish. Head moderately convex; eyes convex, sometimes more or less prominent; temporae oblique, weakly swollen as in the subspecies *angustistylis* Tanaka; frontal furrows deep, posterior parts divergent and vaguely punctate; clypeal suture more distinct than in *angustistylis* Tanaka; surface very minutely and sparsely punctate as in *angustistylis* Tanaka.

Pronotum cordate, convex, narrower than that of *angustistylis* Tanaka, widest at apical fourth, ca. 1.4 times as wide as head (PW/HW 1.35–1.45, mean 1.39), as wide as base in almost the same proportion (PW/PBW 1.40–1.53, mean 1.44), ca. 1.3 times as wide as long (PW/PL 1.22–1.36, mean 1.30); lateral margins well arcuate, then strongly convergent posteriad and gently sinuate before base; apical margin gently emarginate, finely bordered except on the middle, apical angles somewhat produced, rounded at the tips; basal margin almost as wide as the apical, weakly emarginate, not bordered, basal angles rectangular, often more or less produced laterally; median line deep; basal foveae distinct, strongly and ruggedly punctate.

Apterous. Elytra shorter than those of *angustistylis* Tanaka, oblong-ovate, gently convex, widest at middle, or a little behind middle, ca. 1.2 times as wide as pronotum (EW/PW 1.16–1.25, mean 1.21), ca. 2.4 times as long as pronotum (EL/PL 2.30–2.47, mean 2.37), about a half as long again as wide (EL/EW 1.47–1.57, mean 1.52); basal border at shoulder less oblique than that of *angustistylis* Tanaka; intervals less convex than those of *angustistylis* Tanaka; interval 3 with three dorsal pores; marginal series of pores 17–19 in number; microsculpture finer and weaker than that of *angustistylis* Tanaka in the female.

Basal three segments of meso- and metatarsi externally sulcate. Venter almost smooth, though the mesosternum and mesepisterna are punctate, sternites 3–4 vaguely

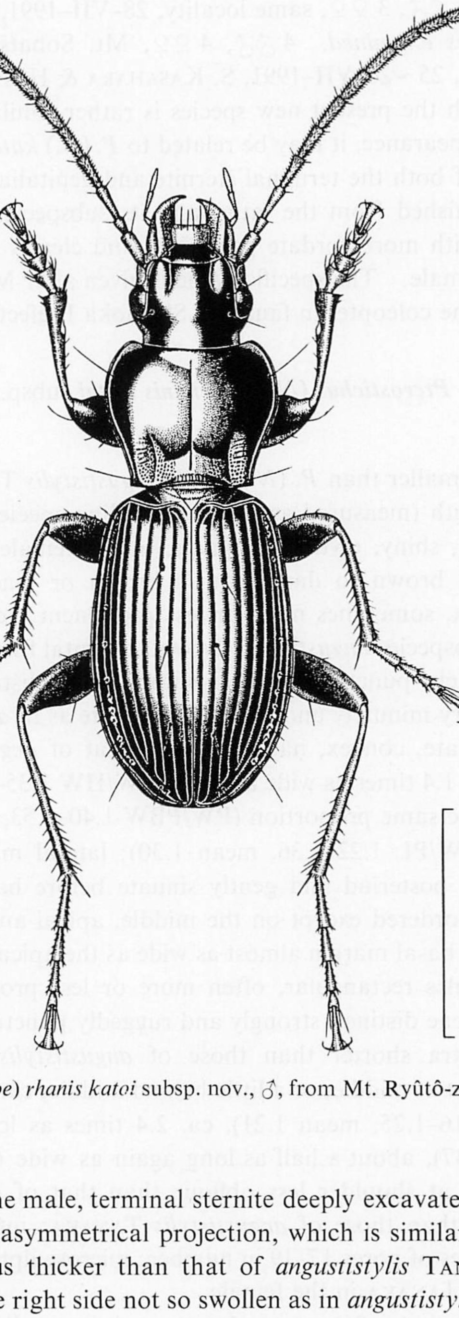


Fig. 5. *Pterostichus* (*Nialoe*) *rhanis katoi* subsp. nov., ♂, from Mt. Ryûtô-zan in Shizuoka Pref. Scale 5 mm.

punctate and rugose; in the male, terminal sternite deeply excavated, its margin deeply emarginate and with an asymmetrical projection, which is similar to that of *angustistylis* TANAKA. Aedeagus thicker than that of *angustistylis* TANAKA in apical two-thirds, the tumidity on the right side not so swollen as in *angustistylis* TANAKA, ventrally almost flat in lateral view; right paramere more slender and arcuate than that of *angustistylis* TANAKA.

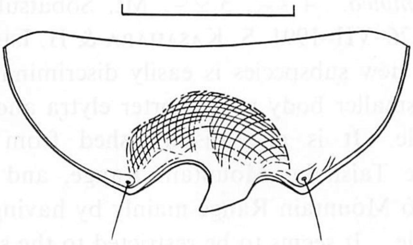
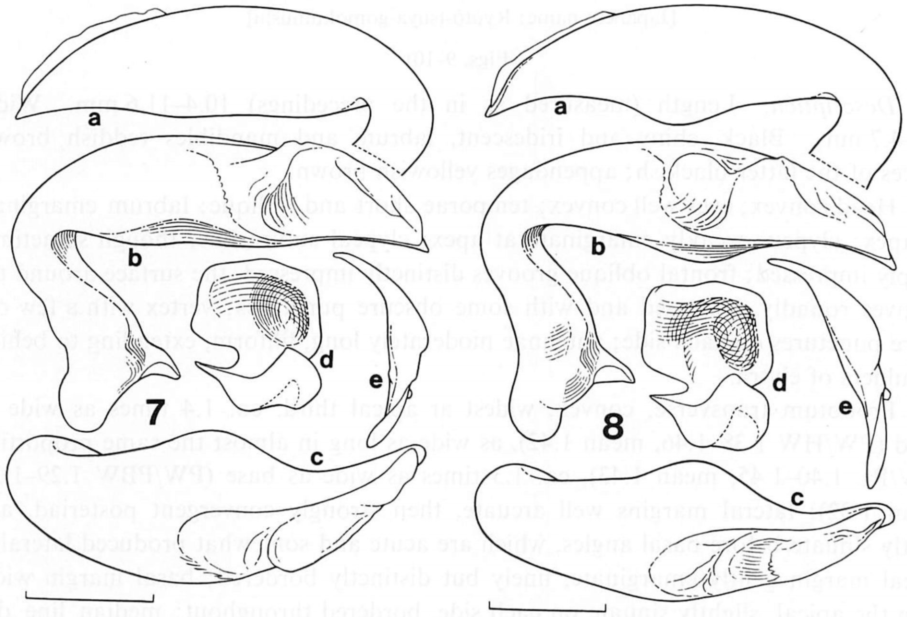


Fig. 6. Terminal sternite in the male of *Pterostichus* (*Nialoe*) *rhanis katoi* subsp. nov., from Mt. Ryûtô-zan in Shizuoka Pref. Scale 1.5 mm.



Figs. 7–8. Male genitalia of *Pterostichus* (*Nialoe*) *rhanis* subspp. —— 7, *P.* (*N.*) *rhanis katoi* subsp. nov., from Mt. Ryûtô-zan in Shizuoka Pref.; 8, *P.* (*N.*) *rhanis angustistylis* TANAKA, from Mt. Fuji-san in Shizuoka Pref.; a–c, aedeagus; a, right lateral view, basal part omitted; b, left lateral view; c, dorsal view; d, left paramere; e, right paramere. Scale 1 mm.

Type series. Holotype: ♂, Mt. Ryûtô-zan, Haruno-chô, Shizuoka Pref., 9–VIII–1988, T. KATÔ leg.; allotype: ♀, same data as for the holotype. Paratypes: 2 ♀♀, same data as for the holotype; 3 ♂♂, same locality as for the holotype, 7–VIII–1989, T. KATÔ leg.; 2 ♂♂, same locality, 16–VII–1989, T. KATÔ leg.; 5 ♂♂, 7 ♀♀ (3 ♂♂, 5 ♀♀ teneral), Mt. Ryûtô-zan, Sakauma-chô, Shizuoka Pref., 26～27–VII–1991, S. KASAHARA & H. ISHIKAWA leg.; 4 ♂♂, 4 ♀♀, same locality, 27～28–VII–1991, S. KASAHARA & H. ISHIKAWA leg.

Other specimens examined. 4 ♂♂, 3 ♀♀, Mt. Sobatsubu-yama, Nakakawane-chô, Shizuoka Pref., 25∼26–VII–1991, S. KASAHARA & H. ISHIKAWA leg.

Notes. The present new subspecies is easily discriminated from *P.* (*N.*) *rhanis angustistylis* TANAKA by smaller body with shorter elytra and different configuration of genitalia in the male. It is also distinguished from *P.* (*N.*) *rhanis rhanis* TSCHITSCHÉRINE from the Taishaku Mountain Range, and *P.* (*N.*) *rhanis kantous* TANAKA from the Kwantô Mountain Range mainly by having different configuration of the genitalia in the male. It seems to be restricted to the southernmost part of the Akaishi Mountain Range.

Trichotichnus (***Trichotichnus***) ***ishikawai*** sp. nov.

[Japanese name: Ryûtô-tsuya-gomokumushi]

(Figs. 9–10)

Description. Length (measured as in the precedings) 10.4–11.6 mm. Width 4.1–4.7 mm. Black, shiny and iridescent, labrum and mandibles reddish brown, apices of the latter blackish; appendages yellowish brown.

Head convex; eyes well convex; temporae short and oblique; labrum emarginate at apex; clypeus weakly emarginate at apex; clypeal suture fine, though sometimes deeply impressed; frontal oblique grooves distinctly impressed, the surface around the grooves roundly depressed and with some obscure punctures; vertex with a few obscure punctures on each side; antennae moderately long, filiform, extending to behind shoulders of elytra.

Pronotum transverse, convex, widest at apical third, ca. 1.4 times as wide as head (PW/HW 1.38–1.46, mean 1.42), as wide as long in almost the same proportion (PW/PL 1.40–1.45, mean 1.43), ca. 1.3 times as wide as base (PW/PBW 1.29–1.37, mean 1.32); lateral margins well arcuate, then strongly convergent posteriad, and gently sinuate before basal angles, which are acute and somewhat produced laterally; apical margin gently emarginate, finely but distinctly bordered; basal margin wider than the apical, slightly sinuate on each side, bordered throughout; median line distinct, its posterior end reaching the basal margin; basal foveae distinct, though becoming shallower and divergent anteriad, densely punctate; outer side of the foveae depressed and punctate, the depressions extending anteriad along lateral margins; apical and basal transverse impressions more distinct in the former, though equally punctate; surface almost wholly but minutely punctate.

Wings reduced. Elytra elliptical, moderately convex, widest at middle, ca. 1.26 times as wide as pronotum (EW/PW 1.22–1.30, mean 1.26), ca. 2.7 times as long as pronotum (EL/PL 2.63–2.78, mean 2.70), about a half as long again as wide (EL/EW 1.43–1.54, mean 1.50); basal border slightly curved, minutely dentate at shoulder; humeral angles very obtuse, though defined; lateral margins evenly and gently arcuate from behind shoulders to preapical emarginations, which are shallow; apex of each elytron pointed though dull at the tip; striae finely but deeply impressed throughout;

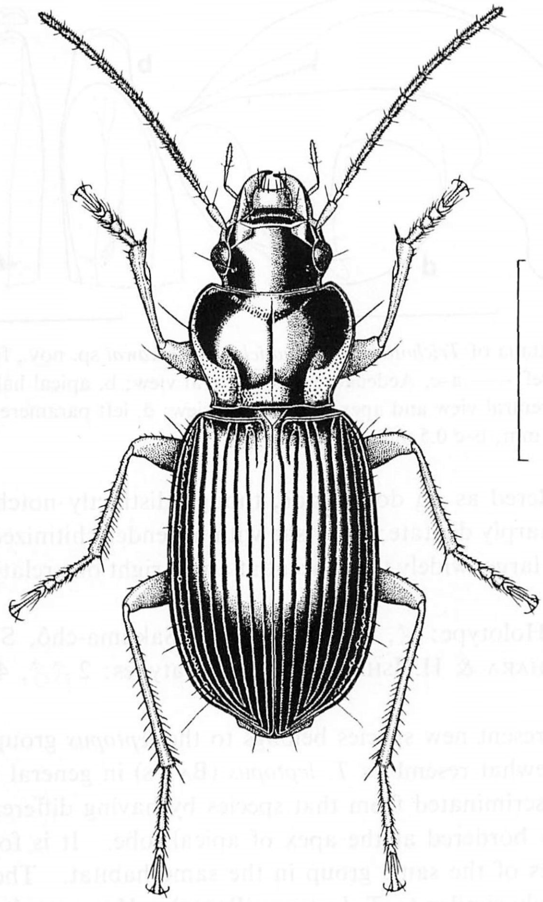


Fig. 9. *Trichotichnus* (*Trichotichnus*) *ishikawai* sp. nov., ♂, from Mt. Ryûtô-zan in Shizuoka Pref. Scale 5 mm.

intervals rather flat on disc; interval 3 with a dorsal pore, adjoining stria 2 at a little behind middle; marginal series of pores 25–27 in number, some small pores of them lying on interval 9.

Venter shiny; prosternum punctate and ciliated; lateral sides of metasternum, and pro-, meso- and metepisterna punctate; abdominal sternite 3 and lateral sides of sternite 4 irregularly rugose and punctate; median part of sternite 4 minutely punctate and ciliated; prosternal process with three to four setae at apex. Protibiae sulcate on each inner side.

Aedeagus thick in basal part, arcuate and tapered towards apex in lateral view; apical part slightly curved rightwards in dorsal view; apical lobe as long as wide, apex distinctly raised and bordered, its apical margin emarginate at middle; apex of ventral

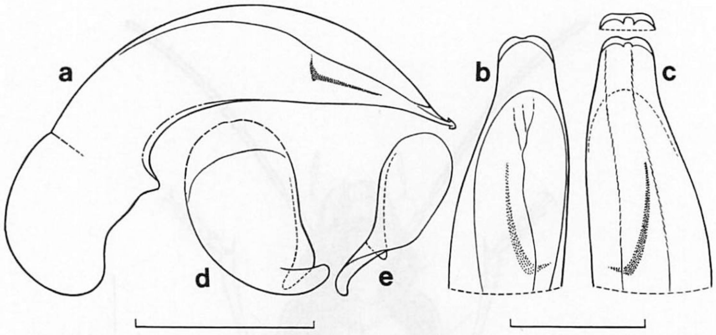


Fig. 10. Male genitalia of *Trichotichus* (*Trichotichnus*) *ishikawai* sp. nov., from Mt. Ryûtô-zan in Shizuoka Pref. —— a–c, Aedeagus; a, left lateral view; b, apical half in dorsal view; c, apical half in ventral view and apex in posterior view; d, left paramere; e, right paramere. Scale: a, d–e 1 mm; b–c 0.5 mm.

side distinctly bordered as on dorsal side, though distinctly notched at middle, each side of the notch sharply dentate; inner sac with a slender chitinized piece at preapical part; left paramere large, widely translucent at apex; right one relatively wide, rounded at apex.

Type series. Holotype: ♂, Mt. Ryûtô-zan, Sakuma-chô, Shizuoka Pref., 27–VII–1991, S. Kasahara & H. Ishikawa leg. Paratypes: 2 ♂♂, 4 ♀♀, same data as for the holotype.

Notes. The present new species belongs to the *leptopus* group (Habu, 1973, pp. 282–300), and somewhat resembles *T. leptopus* (Bates) in general appearance. It is, however, clearly discriminated from that species by having different configuration of aedeagus peculiarly bordered at the apex of apical lobe. It is found in coexistence with another species of the same group in the same habitat. The latter is larger in size, and more closely similar to *T. leptopus* (Bates). However, it is difficult to identify it with confidence because males are not available until now. The specific name of the present species is given after Mr. Hitoshi Ishikawa, a good friend of mine.

要　約

笠原須磨生: 静岡県産歩行虫の2新種と1新亜種. —— 静岡県の天竜川左岸に位置する竜頭山から，ナガゴミムシ属 *Pterostichus* の1新種と1新亜種，およびツヤゴモクムシ属 *Trichotichnus* の1新種を記載した.

1) リュウトウナガゴミムシ *P.* (*Nialoe*) *tahirai* は，外形がベーツナガゴミムシ *P.* (*N.*) *asymmetricus* Bates に似ているが，雄の末端腹板と交尾器の形態からみて明らかにカタシナナガゴミムシ *P.* (*N.*) *katashinensis* Habu に類縁関係をもつ種と考えられる．しかし，後者とその亜種 *naganoensis* Tanaka とは，より扁平な体と後方へ強くせばまる心臓形の前胸背板に加えて，交尾器の形態がいちじるしく異なり，容易に区別できる.

2) ミヤマナガゴミムシ亜種 *P.* (*N.*) *rhanis katoi* は，近隣の富士・箱根地方に分布する亜種 *P.*

(*N.*) *r. angustistylis* Tanaka よりも小型で上翅が短かく，前胸背板の形態も異なる．陰茎の形態も独特で，この点からも帝釈山地に分布する基亜種 *P.* (*N.*) *r. rhanis* Tschitschérine や，関東山地に分布する亜種 *P.* (*N.*) *r. kantous* Tanaka とも区別される．なお，本新亜種と前記新種は，ともに大井川右岸の蕎麦粒山からも得られている．

3) リュウトウツヤゴモクムシ *T.* (*Trichotichnus*) *ishikawai* は，ツヤゴモクムシ種群 *leptopus* group に属する種であるが，関東・中部地方に分布する *T.* (*T.*) *leptopus* (Bates) とその近縁種とは外形が異なり，さらに，陰茎先端片の前縁が背腹ともに顕著に縁取られ，腹面のそれに切れ込みがある点で特異である．

上記のゴミムシは，赤石山脈南端部に特有の種と考えられ，これまで歩行虫相に関しては知見の乏しかったこの地域の特性を示唆するものである．

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Elytra, *Tokyo*, **20** (1): 32, May 15, 1992

A New Form of *Anomotarus stigmula* (Carabidae) from the Ryukyus, Southwest Japan

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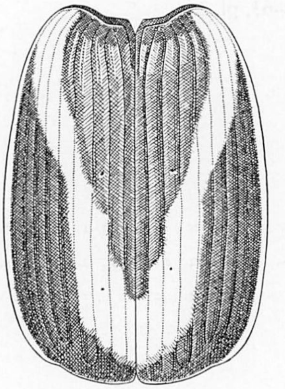
Nishifuna 4–9–13, Funabashi City, Chiba, 273 Japan

The lebiine carabid beetle *Anomotarus stigmula* (CHAUDOIR) is rather rare in Japan, and has hitherto been unrecorded from the Ryukyus. Recently, I have examined three specimens of this species collected on Is. Miyako-jima of the Ryukyus. Of these, two examples are aberrant in elytral maculation as will be seen in the following description and figure.

Anomotarus stigmula (CHAUDOIR)

CHAUDOIR, 1852, Bull. Soc. imp. Natur. Mosc., **25**(1): 57–59 (*Cymindis*), "North India". —— SLOAN, 1917, Proc. Linn. Soc. N. S. Wales, **42**: 436. —— ANDREWES, 1919, Annls. Mag. nat. Hist., (9), **3**: 483; 1930, Cat. Ind. Ins., 18, Carab., p. 28. —— LOUWERENS, 1935, Verh. naturf. Ges. Basel, **64**: 316. —— JEDLIČKA, 1963, Ent. Abh., Dresden, **28**: 451, fig. 116. —— NAKANE, 1963, Icon. Ins. Japon. Col. nat. ed., **2**, p. 52, pl. 26. —— HABU, 1967, Fn. Japon., Carab. Truncat., pp. 118–121, pl. 14; 1982, Ent. Rev. Japan, Osaka, **37**: 93–94. —— OHKURA, 1985, Coleopt. Japan Col., Osaka, **2**, pp. 169, 173.



f. *vittatus* nov.

(Text.-fig.)

Elytral patches lying on the humeral and apical parts are connected with each other, and forming a distinct V-shaped macula on the disc. No such a form has hitherto been known in *A. stigmula*.

Specimens examined. 2 exs., Botanical garden of Hirara-shi, Is. Miyako-jima, Okinawa Pref., 13–VII–1989, S. SHIMIZU leg. Attracted to a light trap.

I am grateful to Messrs. Masaaki ISHIDA and Seiichi SHIMIZU for their kindness in supplying the materials.

Elytra, Tokyo, **20** (1): 33–40, May 15, 1992

The Bornean Genus *Metaxylostiba* STEEL, 1960 (Coleoptera, Staphylinidae, Omaliinae), with the Description of Two New Species

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Abstract The three presently known species of the genus *Metaxylostiba* STEEL, 1960, all from Borneo, are treated. Two of them, *M. monticola* (Sabah, Mt. Kinabalu National Park), and *M. hanskii* (Sarawak, Gunung Mulu National Park) are described as new and illustrated. A key to the species is provided.

Introduction

The genus *Metaxylostiba* was erected by STEEL (1960, p. 171) for *Phloeonomus castaneipennis* CAMERON, 1928 from Sarawak (Mt. Murud). STEEL described and illustrated the important character states of the genus and redescribed the only included species. He pointed out the similarity of the ligula of the species of *Metaxylostiba* to those of the species of the Palearctic genus *Xylostiba* GANGLBAUER, 1895 (like most other genera of Omaliini), giving at the same time the external character states that distinguish these two genera. The distinctive shape of the "accessory sclerite" (STEEL, 1960) of the female genital segment in the species of *Metaxylostiba*, illustrated here (Figs. 7, 14), may be another synapomorphy characterizing the genus (but females of *M. castaneipennis* are not available at present).

During the two field trips (1987 and 1988) to the Mt. Kinabalu National Park in Sabah, northern Borneo, a series of an undescribed species of *Metaxylostiba* was collected at high elevations on Mt. Kinabalu. Specimens of an additional new species of the same genus were recently collected in Sarawak and recognized as such by P. M. HAMMOND in the collection of the British Museum (Natural History), London.

The purpose of this paper is to describe the two new species and to provide a key to the three species of *Metaxylostiba* known at present.

Acknowledgments

I thank Mr. R. ALDRIDGE, The Natural History Museum, London, for making the holotype of *Metaxylostiba castaneipennis* available for study, and Mr. G. SATO, Centre for Land and Biological Resources Research, Ottawa, for finishing the line drawings. I also thank the authorities at the Headquarters of Mt. Kinabalu National Park for their invaluable assistance during my fieldwork in the Park.

The comments of my colleagues Y. BOUSQUET and J. M. CAMPBELL, and Margaret K. THAYER, Field Museum of Natural History, Chicago, were greatly appreciated.

The material this paper is based on is deposited in several collections. The following abbreviations are used when referring to these collections in the text:

ASCC – A. SMETANA Collection, Ottawa, Canada (to be eventually deposited in the Muséum d'Histoire naturelle, Geneva, Switzerland)
BMNH – British Museum (Natural History), London
CNCC – The Canadian National Collection, Ottawa
FMNH – Field Museum of Natural History, Chicago

Key to Species of *Metaxylostiba*

1. Interspaces between punctures on entire pronotum, particularly on postero-lateral portions, with distinct microsculpture of minute striae. Length 3.6 mm .... *M. castaneipennis* (CAMERON)

— Interspaces between punctures on pronotum without microsculpture, except rudimentary microsculpture may be present near anterior angles and/or basal margin of pronotum. 2

2. Punctation on disc of pronotum relatively fine, punctures rarely coalescent, surface therefore not appearing rugulose; diameter of most punctures not larger than width of base of second antennal segment. Apex of median lobe of aedoeagus truncate, minutely emarginate medially (Fig. 4). Length 2.8–3.1 mm .... *M. monticola* sp. nov.

— Punctation on disc of pronotum coarse, punctures often coalescent, surface therefore appearing more or less rugulose; diameter of most punctures slightly larger than width of base of second antennal segment. Apex of median lobe of aedoeagus subacute (Fig. 11). Length 2.7–2.9 mm .....*M. hanskii* sp. nov.

Metaxylostiba castaneipennis (CAMERON, 1928)

Phloeonomus castaneipennis CAMERON, 1928, 433.
Metaxylostiba castaneipennis: STEEL, 1960, 171.

The species was well described and illustrated by STEEL (1960, 171). I therefore present here only some additional comments under the discussion.

Type material. The male holotype (the only known specimen) is deposited in the collection of the British Museum (Natural History), London. It was received dissected, with the aedoeagus in a glycerin microvial, and the mouthparts mounted on a permanent microslide. The terminal abdominal segments and right front tarsus are missing. The specimen is labelled as follows: "Mt. Murud 5,000–6000 f."/"M. Cameron. Bequest. B. M. 1955–147." (two identical labels)/"*Phloeonomus castaneipennis* CAM."/"*Metaxylostiba* STEEL. Type. gen.".

Distribution. *Metaxylostiba castaneipennis* is at present known only from Mt.

Murud in Sarawak, Borneo.

Bionomics. No details are known about the habitat requirements of this species.

Discussion. *Metaxylostiba castaneipennis* differs from the two other species of the genus, in addition to the differently shaped aedoeagus (see Fig. 118 in Steel, 1960, 170), mainly by the finer, more evenly distributed punctation on both the pronotum and the elytra, and by the presence of microsculpture on the entire surface of the pronotum. The pronotal microsculpture, in the form of microstriae connecting the punctures, is rather coarse in the postero-lateral impressions, but is still distinct even in the middle of the pronotal disc.

Metaxylostiba monticola sp. nov.

(Figs. 1–7)

Piceous, head piceous-black to black, pronotum with postero-lateral portions and narrow area along basal margin indefinitely, inconspicuously paler, elytra rufo-brunneous, vaguely darkened postero-laterally and apically in some specimens, abdomen rufo-brunneous both dorsally and ventrally; antennae black, first segment piceous with variably paler apex, segments 2–5 rufo-testaceous; maxillary palpi brown to piceous-brown; labial palpi testaceous; legs rufo-testaceous. Head wider than long (ratio 1.43); clypeus smooth, impunctate, but with fine and dense microsculpture of transverse striae; vertex slightly elevated, with indistinct, more or less smooth, elevated obtuse V-shaped carina in front of ocelli in most specimens; punctation of dorsal side of head dense, moderately coarse; interspaces between punctures somewhat smaller than diameters of punctures, those in areas medial to eyes with distinct microsculpture of microstriae, gradually becoming obsolete toward middle of vertex; eyes large, highly convex, tempora each half as long as length of eye seen from above, each with post-ocular ridge, situated far from posterior margin of eye, distance equal to combined diameters of about five ommatidia of eye. Antenna moderately long, segment 1 distinctly wider and about 1/4 longer than segment 2, segment 3 slenderer and about 1/4 longer than segment 2, segments 4 and 5 slightly longer than wide, segment 6 about as long as at apical margin wide, segments 7–10 wider than long (ratio 1.40), last segment obtusely rounded apically, slightly shorter than two preceding segments combined. Pronotum wider than long (ratio 1.47), wider than head (ratio 1.32), moderately convex, slightly explanate and impressed postero-laterally on each side, with small, inconspicuous round impression at base of explanate part; with arcuate, obtuse carina on each side in apical third close to lateral margin; with two vague, difficult to observe impressions on middle portion in front of basal margin; lateral margins each arcuately narrowed toward obtuse front angles, in posterior half narrowed in almost straight line toward subangulate hind angles; punctation on disc relatively fine, punctures rarely coalescent, surface therefore not appearing rugulose; diameter of most punctures not larger than width of base of second antennal segment; interspaces between punctures without microsculpture, except rudimentary microsculpture may be present near anterior angles and/or basal margin. Scutellum with dense microsculpture of minute striae, with a few fine punctures on apical portion. Elytra long, at suture considerably longer than pronotum at midline (ratio 2.45), hardly widened posteriad, at base distinctly wider than pronotum (ratio 1.20); punctation similar to that on pronotum, but punctures on average coarser and deeper, coalescent here and there, gradually forming longitudinal rugae in front of posterior margin; interspaces between punctures without microsculpture, except rudimentary microstriae connecting punctures present here and there on basal portion of each elytron. Wings fully developed. Lateral portions of prosternum coarsely, densely punctate. Middle portion of mesosternum with dense, irregularly meshed microsculpture and with a few fine punctures. Metasternum with sparse, moderately coarse punctation gradually becoming finer toward midline, surface with fine microsculpture of mostly oblique striae. Abdomen with tergite 7 (fifth visible) with apical seam of palisade fringe; tergite 4 (second visible) with 2 small, paramedial patches of wing-folding microtrichia; tergites extremely finely, sparsely punctulate, surface with dense, fine meshed microsculpture.

Male. Sternite 8 as in Fig. 1, apical margin very broadly, arcuately emarginate; tergite 8 as in Fig. 2. Genital segment as in Fig. 3. Aedoeagus (Fig. 4) small, rather wide, median lobe evenly, inconspicuously constricted around middle, narrowed into truncate, minutely emarginate apex; parameres thin, not reaching apex of median lobe, each with two minute setae at apex and one similar seta below apex; internal sac with numerous small teeth, without larger sclerotized structures, as in Fig. 4.

Female. Sternite 8 as in Fig. 5, apical margin arcuate. Tergite 8 and genital segment, including "accessory sclerite" (STEEL, 1960) as in Figs. 6–7. Sclerotized spermatheca of a spherical shape with middle constriction, similar to those of the species of *Paraphloeostiba* STEEL, 1960 (not drawn).

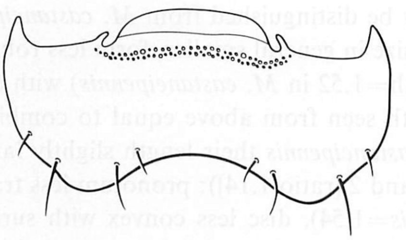
Length 2.8–3.1 mm.

Type material. Holotype (male): Sabah: "BORNEO SABAH Mt. Kinabalu N. P. below Laban Rata 3150 m 5. V. 1987 A. SMETANA". Allotype (female): Sabah: "BORNEO SABAH Mt. Kinabalu N. P. Laban Rata 3200–3250 m 4.V.1987 A. SMETANA". Both holotype and allotype in the SMETANA collection, Ottawa, Canada.

Paratypes: Sabah: "BORNEO SABAH Mt. Kinabalu N. P. blw Layang Layang 2600 m, 2–8.V.87 [or "9–20.V.87"] Int. Trap A. SMETANA" (ASCC, BMNH, CNCC, FMNH) 10.

Bionomics. The holotype was taken by sifting fallen leaves, rotting twigs and other debris under a large, dense *Rubus* bush. The allotype was taken by sifting thick moist layers of dead grass and other low vegetation on large rock blocks. All paratypes come from a flight intercept trap set up in a small opening among the shrubby vegetation just above the microwave station.

Figs. 1–7. *Metaxylostiba monticola*; 1, male sternite 8; 2, male tergite 8; 3, male genital segment, dorsal view; 4, aedoeagus; 5, female sternite 8; 6, female tergite 8; 7, female genital segment, including "accessory sclerite" (STEEL, 1960), ventral view.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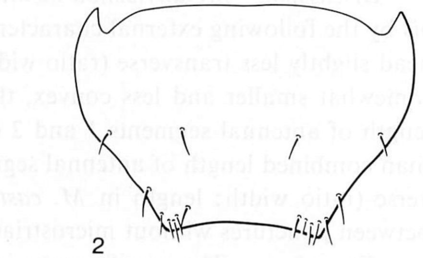
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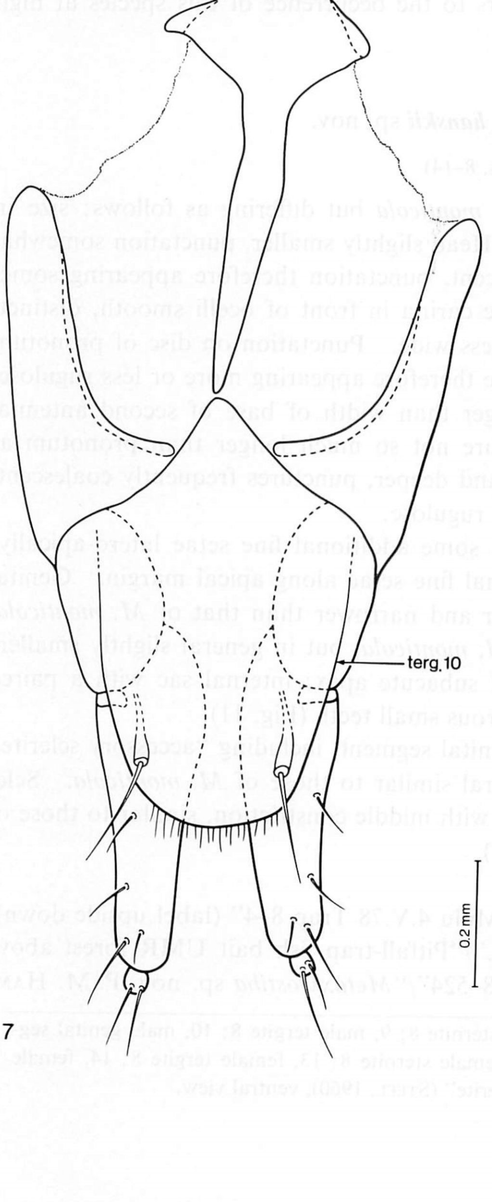

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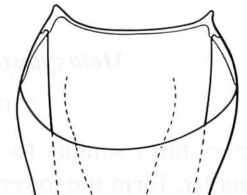
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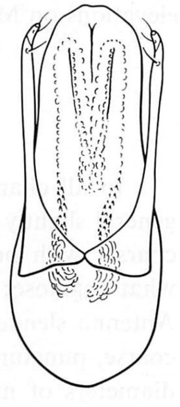
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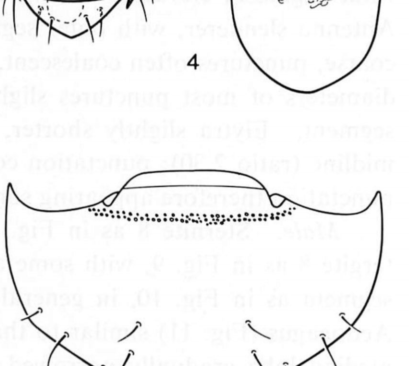
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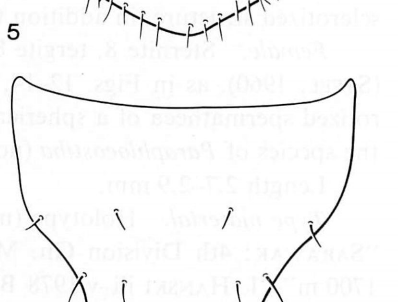
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Discussion. *Metaxylostiba monticola* may be distinguished from *M. castaneipennis* by the following external character states: size in general smaller, form less robust; head slightly less transverse (ratio width: length=1.52 in *M. castaneipennis*) with eyes somewhat smaller and less convex, their length seen from above equal to combined length of antennal segments 1 and 2 (in *M. castaneipennis* their length slightly larger than combined length of antennal segments 1 and 2 [ratio 1.14]); pronotum less transverse (ratio width: length in *M. castaneipennis*=1.54), disc less convex with surface between punctures without microstriae.

Etymology. The specific name is the Latin noun *monticola*, *-ae*, comm. (dweller in the mountains) in apposition. It refers to the occurrence of this species at high elevations on Mt. Kinabalu.

Metaxylostiba hanskii sp. nov.

(Figs. 8–14)

In all character states similar to *M. monticola* but differing as follows: size in general slightly smaller, form narrower. Head slightly smaller, punctation somewhat coarser with punctures frequently coalescent, punctation therefore appearing somewhat rugulose; elevated, V-shaped obtuse carina in front of ocelli smooth, distinct. Antenna slenderer, with outer segments less wide. Punctation on disc of pronotum coarse, punctures often coalescent, surface therefore appearing more or less rugulose, diameters of most punctures slightly larger than width of base of second antennal segment. Elytra slightly shorter, at suture not so much longer than pronotum at midline (ratio 2.30); punctation coarser and deeper, punctures frequently coalescent, punctation therefore appearing somewhat rugulose.

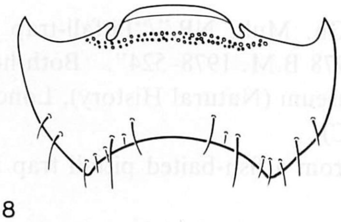
Male. Sternite 8 as in Fig. 8, with some additional fine setae latero-apically; tergite 8 as in Fig. 9, with some additional fine setae along apical margin. Genital segment as in Fig. 10, in general smaller and narrower than that of *M. monticola*. Aedoeagus (Fig. 11) similar to that of *M. monticola*, but in general slightly smaller; median lobe gradually narrowed toward subacute apex; internal sac with a paired sclerotized structure, in addition to numerous small teeth (Fig. 11).

Female. Sternite 8, tergite 8 and genital segment, including "accessory sclerite" (STEEL, 1960), as in Figs. 12–14, in general similar to those of *M. monticola*. Sclerotized spermatheca of a spherical shape with middle constriction, similar to those of the species of *Paraphloeostiba* (not drawn).

Length 2.7–2.9 mm.

Type material. Holotype (male): "Mulu 4.V.78 Trap 8–4" (label upside down)/ "SARAWAK: 4th Division Gn. Mulu NP."/"Pitfall-trap fish bait UMR forest above 1700 m"/"I. HANSKI iii–v.1978 B.M. 1978–524"/"*Metaxylostiba* sp. nov. P. M. HAM-

Figs. 8–14. *Metaxylostiba hanskii*; 8, male sternite 8; 9, male tergite 8; 10, male genital segment, dorsal view; 11, aedoeagus; 12, female sternite 8; 13, female tergite 8; 14, female genital segment, including "accessory sclerite" (STEEL, 1960), ventral view.



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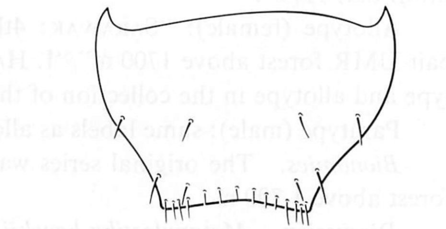

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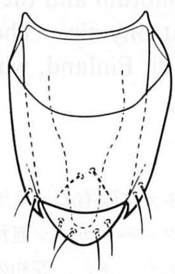

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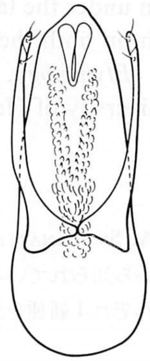

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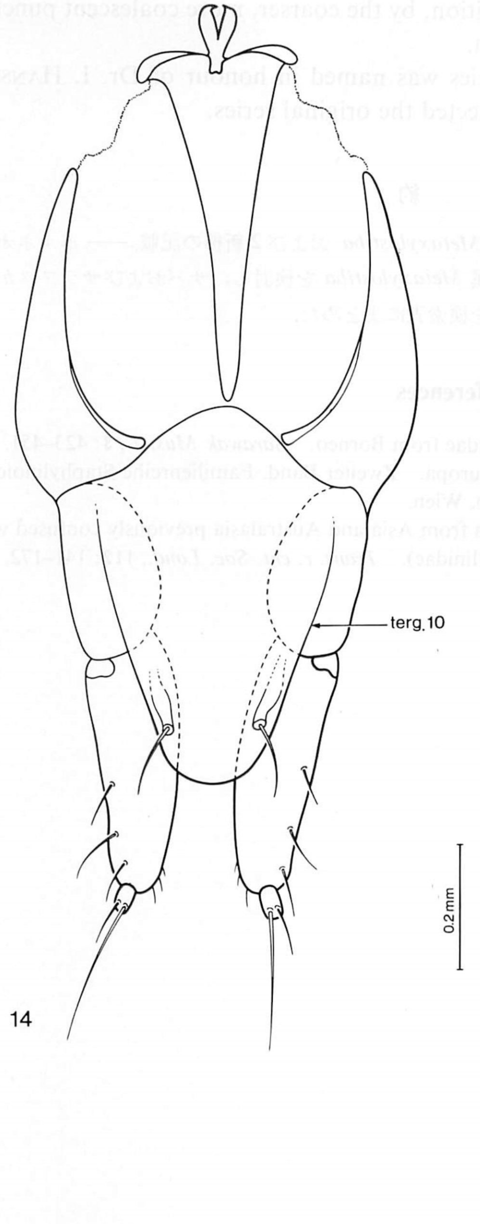

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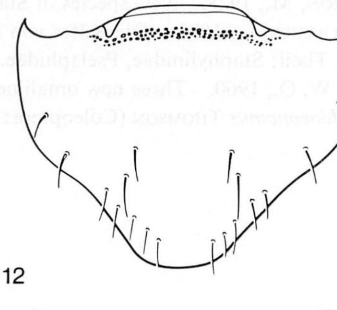

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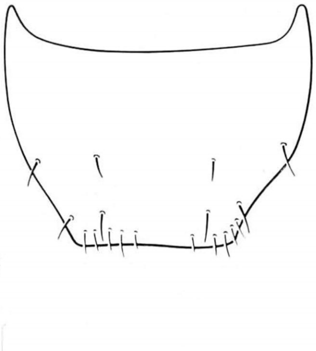

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MOND det. 1979".

Allotype (female): "SARAWAK: 4th Division Gn. Mulu NP."/"Pitfall-trap fish bait UMR forest above 1700 m"/"I. HANSKI iii–v.1978 B.M. 1978–524". Both holotype and allotype in the collection of the British Museum (Natural History), London.

Paratype (male): same labels as allotype (CNCC).

Bionomics. The original series was collected from a fish-baited pitfall trap in a forest above 1,700 m.

Discussion. *Metaxylostiba hanskii* may easily be distinguished from *M. castaneipennis* by the same set of character states that distinguish *M. monticola* (see the discussion under the latter species), and, in addition, by the coarser, more coalescent punctation on both the pronotum and the elytra.

Etymology. Patronymic. The species was named in honour of Dr. I. HANSKI, University of Helsinki, Finland, who collected the original series.

要　約

A. SMETANA: ボルネオに固有のハネカクシ *Metaxylostiba* および2新種の記載. —— ボルネオのみから知られているヨツメハネカクシ亜科の1属 *Metaxylostiba* を検討し，サバおよびサラワクからそれぞれ1新種を記載した. また，既知の3種を検索表にまとめた.

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STEEL, W. O., 1960. Three new omaliine genera from Asia and Australasia previously confused with *Phloeonomus* THOMSON (Coleoptera: Staphylinidae). *Trans. r. ent. Soc. Lond.*, **112**: 141–172.

Elytra, Tokyo, **20** (1): 41–46, May 15, 1992

A New Species of the Genus *Olophrinus* FAUVEL (Coleoptera, Staphylinidae) First Recorded from Taiwan

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Abstract A new staphylinid beetle of the genus *Olophrinus* hitherto unrecorded from Taiwan is described and illustrated under the name of *O. suzukii*. It is readily recognized from the known species of the genus on its large and broad body, presence of eight shallow rows of punctures on each elytron, and differently shaped secondary sexual characters on abdominal segments.

The genus *Olophrinus* FAUVEL is one of the small genera of the subfamily Tachyporinae and is known to contain only three species, all of which have been mainly known from Southeast Asia. They are *Olophrinus octolineatus* CAMERON (1918, p. 218) from Borneo, *O. malaisei* SCHEERPELTZ (1965, p. 323) from Burma and *O. striatus* FAUVEL (1895, p. 281) from Burma and India.

In the present paper I am going to describe a fourth new species collected from the temperate forest of the northern and central mountainous areas in Taiwan.

Before going further, I wish to express my cordial thanks to Professor Yasuaki WATANABE of Tokyo University of Agriculture, for his continuous guidance and encouragement, and to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his kindness extended to me in various ways. Hearty thanks are also due to Dr. Wataru SUZUKI for his help in material, and to Mr. Akinori YOSHITANI for his assistance in preparing the illustration of the whole insect inserted in the present paper.

Genus ***Olophrinus*** FAUVEL

Olophrinus FAUVEL, 1895, Rev. Ent., Caen, **14**, p. 280 (type species: *Olophrinus striatus* FAUVEL, 1895).
—— CAMERON, 1932, Faun. Brit. Ind., Coleopt. Staphyl. III, p. 404.

The genus *Olophrinus* can be readily distinguished from the other genera of the subfamily Tachyporinae by the following combination of characters: body broadly oval and strongly convex above; maxillary palpi with last segment much longer than the 3rd, and about as long as the 2nd; prosternal epimera present; elytra with rows of punctures; mesosternum strongly carinate in the middle, the edge of the keel more or less serrate, extending nearly the whole length of coxae; abdomen with broad and well developed paratergites; posterior tarsi with the 1st segment much broader than and about as long as the three following segments together.

Olophrinus suzukii sp. nov.

(Figs. 1–8)

Body broadly oval and strongly convex above. Colour black; moderately shining; mouth parts, first four segments of antennae reddish testaceous, though the following segments are testaceous; tibiae, tarsi and posterior margin of both pronotum and last abdominal segment more or less rufo-piceous. Length 7–7.5 mm; breadth 2.8–3.0 mm.

Head small, subtriangular, much narrower than pronotum (greatest width of head including eyes / greatest width of pronotum=0.45); surface almost impunctate and covered with coriaceous ground sculpture consisting of dense and extremely small isodiametric meshes except for narrow Y-shaped and shining fronto-clypeal and mid-cranial suture; eyes rather large and strongly protruding from lateral line of head. Antennae long and slender, hardly thickened towards apex, extending a little beyond the hind margin of pronotum; basal four segments polished and cylindrical, the re-

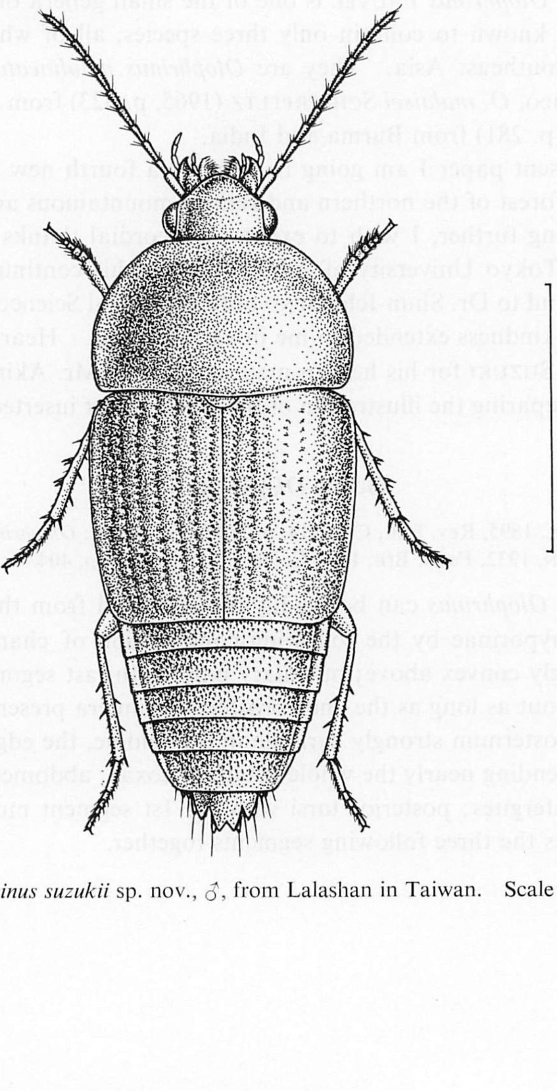
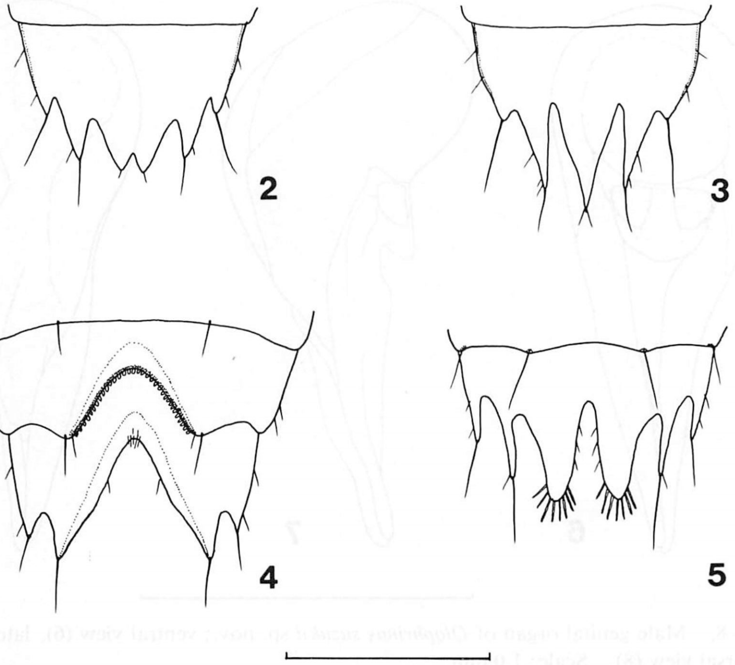


Fig. 1. *Olophrinus suzukii* sp. nov., ♂, from Lalashan in Taiwan. Scale: 3.0 mm.

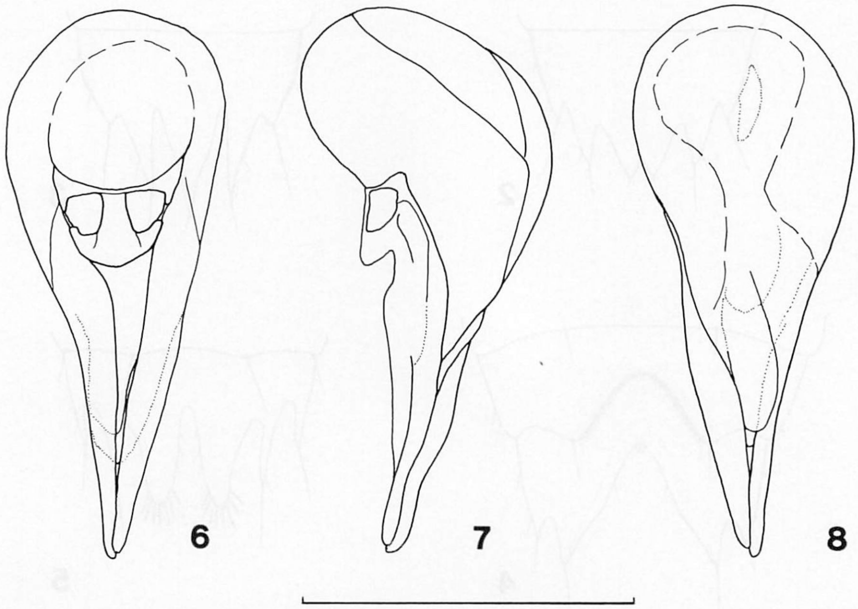


Figs. 2–5. Abdominal segments of *Olophrinus suzukii* sp. nov.; male 8th tergite (2), female 8th tergite (3), male 7th and 8th sternites (4), female 8th sternite (5). Scale: 0.8 mm.

mainings opalescent and more or less depressed, all the segments longer than broad; 1st segment robust and slightly dilated apicad, 2nd the shortest, 3rd much longer than 2nd (3rd/2nd=1.48), 4th a little shorter than 3rd (4th/3rd=0.93), 4th to 10th very gradually diminishing in length, each segment slightly dilated towards the apex, the apicalmost a little longer than 10th (11th/10th=1.27), about twice as long as broad and subacuminate.

Pronotum distinctly transverse (greatest width of pronotum / length of pronotum, measured along the midline=1.70), and slightly narrower than elytra (greatest width of pronotum / greatest width of elytra=0.97), both basal and apical margins finely and feebly bordered, lateral margins finely but distinctly bordered throughout the sides, widest at about posterior third, strongly convergent and gently arcuate to broadly rounded anterior angles but feebly so towards obtusely rounded posterior angles; dorsal surface with a few small punctures a little before the basal margin, otherwise very sparingly and very perceptibly punctured, and covered with coriaceous ground sculpture similar to that of head though the meshes are finer. Scutellum semicircular, coriaceous ground sculpture consisting of dense and shallow reticulate meshes, impunctate.

Elytra nearly trapezoidal, sutural length about one and three times as long as



Figs. 6–8. Male genital organ of *Olophrinus suzukii* sp. nov.; ventral view (6), lateral view (7), dorsal view (8). Scale: 1.0 mm.

pronotum at midline, somewhat wider than long (greatest width of elytra / length of elytra, measured along the suture from the apex of scutellum to the posterior margin = 1.28), widest just behind anterior angles, and slightly narrowed towards apex, anterior and posterior angles broadly rounded; each elytron with eight rows of punctures, the five inner ones disappearing at about one-eighth from the apices, two sublateral ones consisting of finer punctures than the inner ones, disappearing in front of the middle and distinct on the disc but more or less obliterated near the apices, the lateralmost one just in the marginal groove; interspaces between the rows of punctures covered with irregularly transverse waved ground sculpture and with extremely fine, sparing punctures.

Abdomen broad, gradually tapering towards apex; abdominal tergites completely devoid of pruinose spots, covered with very fine microscopic coriaceous ground sculpture visible under high magnification; basal region of each segment coarsely and moderately closely punctured, but the remaining posterior surface is very finely, though not closely punctured.

Male. Basal four segments of front tarsi strongly widened. Eighth tergite with bifid median lobe a little longer than lateral lobes, median emargination shallow. Seventh sternite with apical margin broadly and deeply emarginate, the emargination bordered by short coarse granules. Eighth sternite with a broad, deep, triangular excision at the posterior margin, lateral margin with a short dentiform process on each side near apex. Male genital organ well sclerotized and somewhat asymmetrical. Median lobe short and narrowed towards the narrowly rounded apex. Paramere long and slender, gradually tapering to apex; viewed ventrally, the apical portion slightly overlapping each other.

Female. Eighth tergite with three long narrow lobes, apical margin of the median lobe entire and a little longer than lateral lobes. Eighth sternite with median fimbriate lobes obviously long and broad, separated by a moderately deep, narrow emargination.

Type series. Holotype: ♂, near Mt. Lalashan, about 1,700 m alt., on the borders between Taoyuan and Taipei Hsiens, Taiwan, 25–VII–1978, W. SUZUKI leg. Allotype: ♀, near Meifeng, about 2,100 m alt., Nantou Hsien, Taiwan, 28–VII–1979, Y. SHIBATA leg. Paratypes: 2 ♀♀, same locality and data as for the allotype.

The holo- and allotypes are deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture, and paratypes are deposited in the author's private collection.

Notes. The present new species can be readily recognized from the known members of the genus on the following characters: body larger and broader, the presence of remarkable microsculpture consisting of isodiametric meshes on head and pronotum, and of eight shallow rows of punctures on each elytron, and differently shaped male and female secondary sexual characters on the 7th and 8th abdominal tergites and sternites.

A male specimen from Mt. Lalashan was collected by beating the lower parts of *Miscanthus sinensis* growing along the mountain path. All the specimens from Meifeng were found from under fallen leaves accumulated at the margin of a broadleaved forest.

The specific name is given after Dr. Wataru SUZUKI, who offered the interesting material for the author's study.

要　約

柴田泰利：台湾から未記録の *Olophrinus* 属の1新種. —— *Olophrinus* 属はシリホソハネカクシ亜科 Tachyporinae の小さい属で，この亜科の他属のものとは体が幅広で上面が強く膨隆し，上翅には列状の点刻列をもつことなどで識別される.

この属のものは分布が東南アジアに限定され，現在までに *Olophrinus octolineatus* CAMERON がボルネオ，*O. striatus* FAUVEL がビルマとインド，それに *O. malaisei* SCHEERPELTZ がビルマから記録されている.

今回，台湾の北部と中部の山岳地帯からこの属の第4番目の種が採集されたが，検討の結果，新種と認められたので，*Olophrinus suzukii* と命名して記載した.

Olophrinus suzukii は大型で幅広，頭と胸部は等軸で彫粒状の微細印刻におおわれ，光沢は鈍く，上翅の8列の点刻列は浅く，雌雄の腹部第 7，8 節の第二次性徴が特異であることなどにより，既知の種から容易に区別される.

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Elytra, Tokyo, **20** (1): 46, May 15, 1992

A New Record of *Pinophilus* (Coleoptera, Staphylinidae) from Japan

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Tsurukawa 3–8–13, Machida City, Tokyo, 195 Japan

Pinophilus sautteri BERNHAUER

Pinophilus sautteri BERNHAUER, 1935, Koleopt. Rdsch., **21**: 42 (Taiwan).

Specimens examined. 1 ♀, Yona, Okinawa-Hontô, Okinawa Pref., Japan, 24–III–1988, T. UENO leg.; 3 ♂♂, 4 ♀♀, Kenting Park, Pingtung Hsien, Taiwan, 12–VIII–1973, Y. SHIBATA leg., same locality, 3 ♂♂, 5 ♀♀, 11–VIII–1974, Y. SHIBATA leg.

Distribution. Japan, Taiwan.

The present species resembles *P. lewisius* SHARP in general appearance, but can be easily distinguished from the latter by the smaller body and short elytra (length of elytra / length of pronotum=0.75).

I am much indebted to Mr. Teruhisa UENO for his kind support of the material.

Elytra, Tokyo, **20** (1): 47–56, May 15, 1992

New Species of the Genus *Lathrobium* (Coleoptera, Staphylinidae) from the Wu-yan-ling Nature Protective Area in Zhejiang Province, East China[1]

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Abstract Two new species of apterous *Lathrobium* are described and illustrated under the names of *L. imadatei* and *L. tamurai*. The former belongs to the group of *L. brachypterum* and the other to the group of *L. monticola*, both having been obtained from the litter zone of the Wu-yan-ling Nature Protective Area in Tai-shun County of Zhejiang Province, East China.

From the beginning to the middle of September, 1990, the authors had an opportunity of investigating the staphylinid fauna of the Wu-yan-ling Nature Protective Area in Tai-shun County of Zhejiang Province as members of the Sino-Japanese Cooperative Study on Soil Fauna of Subtropical Forests in China.

During the investigation, two species of *Lathrobium* were obtained from the litter zone of temperate mixed forest in the Wu-yan-ling Nature Protective Area at an altitude of about 800 m. One of them belongs to the group of *L. brachypterum* for the reason of having similar body size and transverse elytra, while the other to the group of *L. monticola* because of its small size.

After a careful examination, it became clear that these species did not agree with the known species of respective groups in secondary sexual charecter of abdomen and configuration of male genital organ. They seem to be new to science, and will be described in the present paper. The holo- and allotypes of the two new species to be described are deposited in the collection of the Shanghai Institute of Entomology, Academia Sinica, China, and the paratypes are preserved in the collection of the Laboratory of Entomology, Tokyo University of Agriculture, Tokyo.

Before going further, the authors wish to express their hearty thanks to Professor YIN Wen-ying of the Shanghai Institute of Entomology, Academia Sinica, and Pro-

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[1] This study is supported by the Grant-in-aid No. 01041032 for Field Research of the Monbusho International Scientific Research Program, Japan.

fessor Gentaro IMADATÉ of Tokyo Medical and Dental University for their kind help through the Sino-Japanese Cooperative Study. Deep gratitude is also due to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his advice on the present study, and to Professor Hiroshi TAMURA of Ibaraki University, Mito, and the members of the Sino-Japanese Cooperative Study, for their kind collaboration in searching for these new species in the field.

Lathrobium imadatei sp. nov.

(Figs. 1–6)

Body length: 8.7–9.0 mm (from front margin of head to anal end); 3.7–4.0 mm (from front margin of head to elytral apices).

Body elongate, nearly parallel-sided and subdepressed above. Colour reddish brown to reddish black and moderately shining, with antennae somewhat paler except for proximal five segments or so, mouth parts, terminal segment of abdomen and legs yellowish brown.

Head subtrapezoidal, gently convex in middle and a little broader than long (width/length=1.12), widest at the posterior fourth and more strongly narrowed anteriad than posteriad; lateral sides feebly arcuate; frontal area between antennal tubercles transversely flattened and impunctate, provided with a distinct setiferous puncture inside each antennal tubercle; surface covered with microscopic ground sculpture all over, rather coarsely and setiferously punctured, the setiferous punctures becoming closer on latero-posterior areas than on medio-frontal area; eyes small, the longitudinal diameter less than one-third as long as the postocular part. Antennae relatively slender, extending a little beyond the middle of pronotum and not thickened apicad, with two proximal segments polished and the remainings opaque; 1st segment robust, dilated apicad, more than 2.5 times as long as broad, 2nd constricted at the base, 1.5 times as long as broad, but much shorter (2nd/1st=0.38) and a little narrower (2nd/1st=0.67) than 1st, 3rd somewhat dilated apicad, twice as long as broad and a little longer than (3rd/2nd=1.34) but as broad as 2nd, 4th to 6th almost equal in both length and width to one another, each 1.5 times as long as broad, 7th to 10th more or less moniliform and equal in both length and width to one another, each about 1.25 times as long as broad, apicalmost fusiform, about twice as long as broad and 1.5 times as long as 10th, subacuminate towards the tip.

Pronotum moderately convex and distinctly longer than broad (length/width=1.19), slightly broader than head (pronotum/head=1.04), widest just behind anterior angles and gently narrowed posteriad; lateral sides almost straight as seen from above except near anterior and posterior angles, anterior margin feebly arcuate, posterior margin straight but slightly emarginate at the middle, anterior angles rounded but not visible from dorsal side, posterior ones obtuse; surface sparingly covered with rather coarse punctures except for a narrow longitudinal smooth area along the median line. Scutellum subtriangular, provided with a few superficial setiferous punctures on the

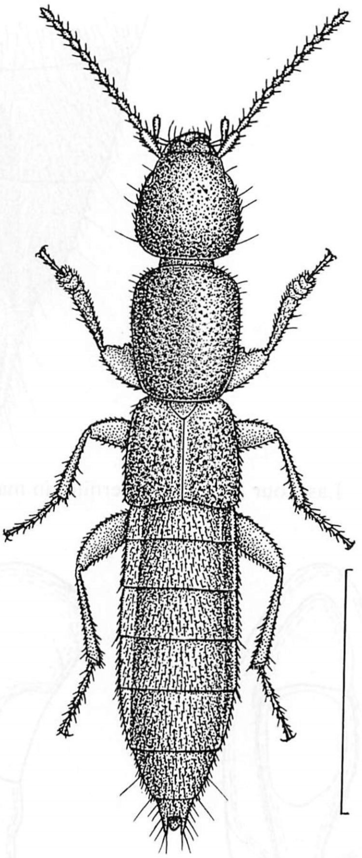


Fig. 1. *Lathrobium imadatei* sp. nov., ♂.
Scale: 3.0 mm.

surface. Elytra somewhat dilated posteriad and a little transverse (width/length=1.18), as broad as but evidently shorter (elytra/pronotum=0.71) than pronotum; lateral sides feebly arcuate, posterior margin emarginate at the middle, posterior angles obliquely truncated; surface rather densely and roughly punctured, and covered with fine brownish pubescence decumbent backwards. Hind wings each degenerated to a minute lobe. Legs relatively short; profemur remarkably thickened, provided with a subtriangular tooth near apical third on the inner face; protibia dilated apicad, hollowed in basal half on the inner face and armed with five comb-like transverse rows of yellowish setae within the hollow; meso- and metatibiae not modified; 1st to 4th protarsal segments strongly dilated, meso- and metatarsi thin.

Abdomen elongate, parallel-sided in basal five visible segments but abruptly narrowed from 6th visible segment to anal end; basal four tergites each shallowly and transversely depressed along the base; surface of each tergite moderately closely, superficially punctured and finely pubescent; preapical sternite semicircularly and asymmetrically excised at the middle of posterior margin and long elliptically depressed

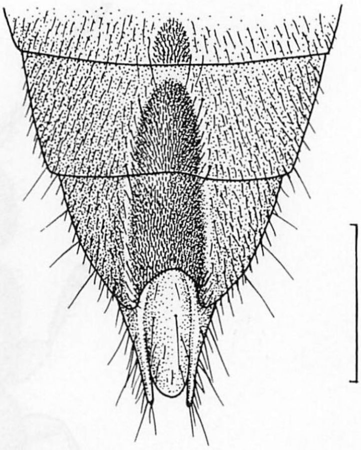
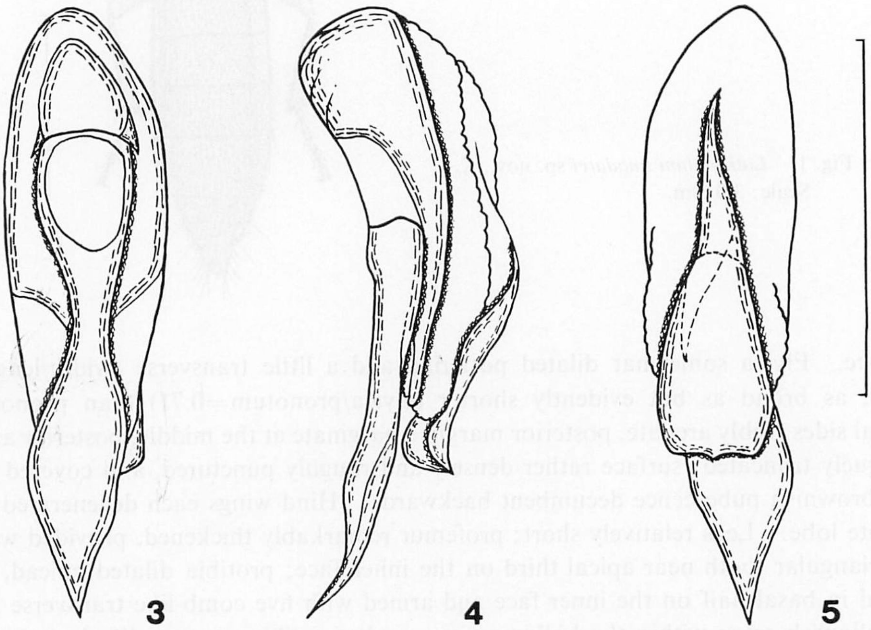


Fig. 2. Last four abdominal sternites in male of *Lathrobium imadatei* sp. nov. Scale: 1.0 mm.



Figs. 3–5. Male genital organ of *Lathrobium imadatei* sp. nov.; ventral view (3), lateral view (4), and dorsal vew (5). Scale: 1.0 mm.

along the median line in front of the excision, surface of the depression covered with short rigid blackish setae; 5th visible sternite shallowly emarginate at the middle of posterior margin, provided with a horseshoe-shaped depression shallower than that

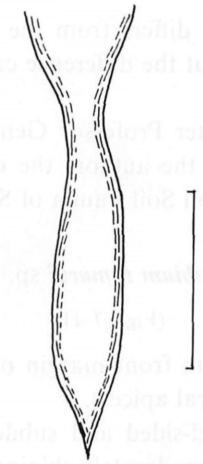


Fig. 6. Apical part of fused paramere of *Lathrobium imadatei* sp. nov. (paratype). Scale: 0.5 mm.

on preapical sternite before the emargination, surface of the depression covered with similar setae to those on 6th sternite; 4th visible sternite somewhat depressed at the middle just before posterior margin and covered with numerous blackish setae on the surface of the depression; 3rd visible sternite provided with a small lump of similar setae to those on 4th sternite at the middle in front of posterior margin, though sometimes wanting.

Genital organ well sclerotized except for each side of dorsum. Median lobe shorter than fused paramere. Fused paramere elongate and asymmetrical, distinctly constricted near the middle and more strongly widened apicad than basad, apical half spindle-shaped, ventral surface gently elevated near apical fourth in profile. Dorsal side of median lobe provided with a well sclerotized plate, which is strongly widened apicad, with the apex truncated though minutely and subtriangularly projecting at the middle.

Female. Similar to male in general appearance, though the 1st to 4th protarsal segments are less dilated, last visible abdominal sternite produced posteriad at the middle and narrowly rounded at the apex.

Type series. Holotype: ♂, allotype: ♀, Wu-yan-ling Nature Protective Area, Tai-shun County, Zhejiang Province, China, 11–IX–1990, Y. WATANABE leg. Paratypes: 3 ♂♂, same data as for the holotype; 2 ♀♀, same locality and collector as for the holotype, 10–IX–1990.

Distribution. East China.

Notes. In view of its build and size, the present new speices belongs to the group of *L. brachypterum* from Japan, but can be readily distinguished from the other members of the group by the configuration of secondary sexual character of abdomen and genital organ in the male.

One of the paratypes slightly differs from the others in configuration of fused paramere of male genital organ, but the difference can be regarded as an infraspecific variation.

The specific name is given after Professor Gentaro IMADATÉ of Tokyo Medical and Dental University, who gave the authors the opportunity to participate in the Sino-Japanese Cooperative Study on Soil Fauna of Subtropical Forests in China.

Lathrobium tamurai sp. nov.

(Figs. 7–11)

Body length: 5.9–6.3 mm (from front margin of head to anal end); 2.6–2.8 mm (from front margin of head to elytral apices).

Body elongate, nearly parallel-sided and subdepressed above. Colour reddish brown to dark reddish brown and moderately shining, with antennae somewhat paler, mouth parts, terminal segment of abdomen and legs yellowish brown.

Head subquadrate, somewhat depressed above and transverse (width/length=1.08), gently narrowed anteriad, with lateral sides feebly arcuate; front area between antennal tubercles transversely flattened and glabrous, though provided with a setiferous puncture inside each antennal tubercle; disc sparsely scattered with rather coarse setiferous punctures except for impunctate vertexal area, latero-posterior area also covered extensively with setiferous punctures which are somewhat finer and more numerous than those on disc; eyes small, the longitudinal diameter about two-fifths as long as the postocular part. Antennae elongate, extending to the middle of pronotum and not thickened apicad; proximal two segments polished and the remainings more or less opaque, 1st segment robust, strongly dilated apicad, more than twice as long as broad, 2nd evidently longer than broad (length/width=1.28) but much shorter (2nd/1st=0.45) and distinctly narrower (2nd/1st=0.78) than 1st, 3rd equal in both length and width to 2nd, 5th to 10th more or less moniliform and equal in width to one another, 4th distinctly longer than broad (length/width=1.15) but somewhat shorter than 3rd (4th/3rd=0.90), 5th as long as 4th and equal in width to 4th, 6th to 9th equal in length to one another, 6th and 7th each as long as broad and a little shorter than 5th (6th/5th=0.89), 8th and 9th each slightly longer than broad (length/width=1.03), 10th longer than broad (length/width=1.25), somewhat longer (10th/9th=1.25) and slightly broader (10th/9th=1.03) than 9th, apicalmost fusiform, more than 1.5 times as long as broad and apparently longer than 10th (apicalmost/10th=1.25), subacuminate towards the tip.

Pronotum oblong and moderately convex medially, evidently longer than broad (length/width=1.15), considerably longer (pronotum/head=1.43) and a little broader (pronotum/head=1.16) than head, widest behind anterior angles and slightly narrowed posteriad; lateral sides nearly straight except near anterior and posterior angles, anterior margin gently rounded but straight or slightly emarginate at the middle,

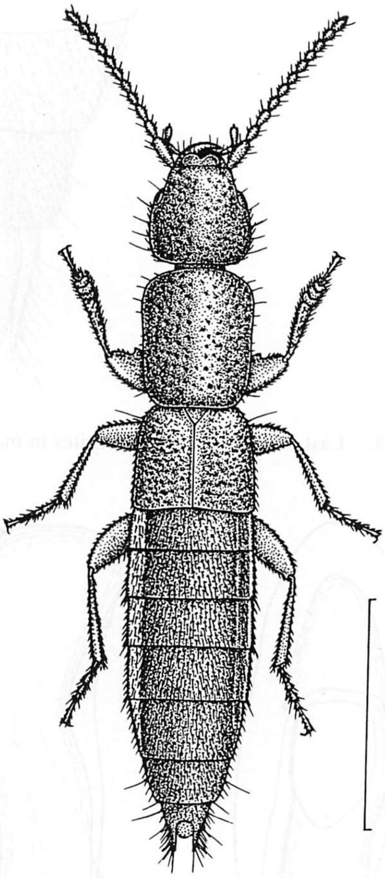


Fig. 7. *Lathrobium tamurai* sp. nov., ♂.
Scale: 2.0 mm.

posterior margin subtruncate, anterior angles obtuse and not visible from above, posterior ones narrowly rounded; surface sparsely, strongly and setiferously punctured with the exception of a narrow median smooth longitudinal part throughout the length of pronotum. Scutellum subtriangular, with a few minute superficial setiferous punctures on the surface. Elytra somewhat dilated posteriad and transverse (width/length= 1.19), much shorter (elytra/pronotum=0.76) but somewhat broader than pronotum (elytra/pronotum=1.03); lateral sides feebly arcuate, posterior margin shallowly emarginate at the middle, posterior angles broadly rounded; surface setiferously punctured all over, the punctures much closer and much coarser than those on pronotum. Hind wings each degenerated to a minute lobe. Legs relatively stout, profemur remarkably thickened, provided with a subtriangular tooth near apical third on the inner face; protibia dilated apicad, hollowed in basal half on the inner face and armed with five comb-like transverse rows of fine brownish setae within the hollow; meso- and metatibiae normal; 1st to 4th protarsal segments strongly widened.

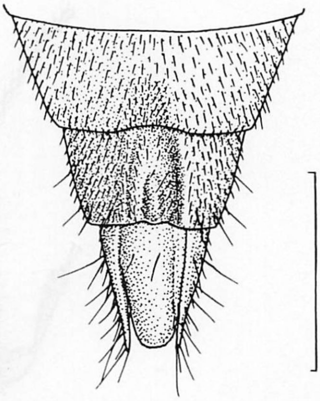
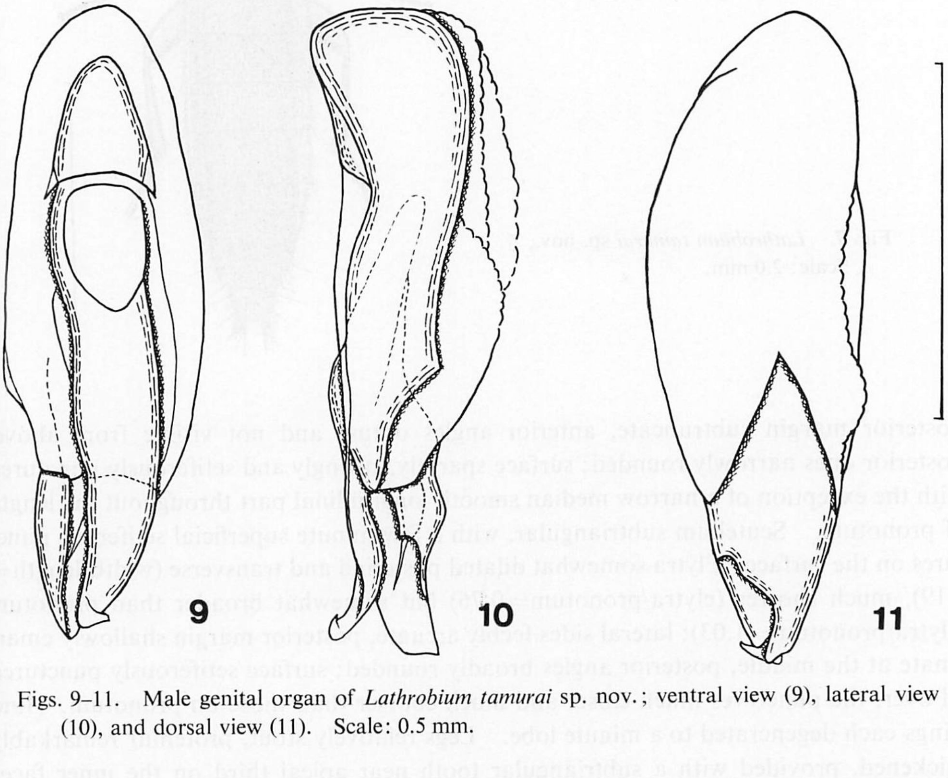


Fig. 8. Last three abdominal sternites in male of *Lathrobium tamurai* sp. nov. Scale: 1.0 mm.



Figs. 9–11. Male genital organ of *Lathrobium tamurai* sp. nov.; ventral view (9), lateral view (10), and dorsal view (11). Scale: 0.5 mm.

Abdomen elongate, nearly parallel-sided in basal five visible segments, but abruptly narrowed from 6th visible segment to anal end; surface of each tergite densely covered with fine superficial punctures and fine brownish pubescence; 6th visible sternite shallowly emarginate at the middle of posterior margin and long elliptically depressed at the middle in front of the emargination, surface of the depression provided with a number of short blackish setae on each side of the median part which is longitudinally elevated in apical half; 5th visible sternite slightly emarginate at the middle of posterior margin and horseshoe-shapedly depressed before the emargination, surface of the depression covered with short brownish setae which are coarser than those on the other parts.

Genital organ long elliptical and well sclerotized except for the dorsal side of median lobe. Median lobe broader but shorter than fused paramere. Fused paramere asymmetrical and elongate, gradually narrowed in basal half and abruptly so in apical half towards apex and terminated in a small projection which is ventrally curved as seen from lateral side; ventral surface broadly and longitudinally depressed. Dorsal side of median lobe provided with a well sclerotized plate which is strongly narrowed apicad, left margin of the plate gently arcuate and right margin bisinuate, with the apex obliquely truncate but feebly emarginate at the middle.

Female. Similar in general appearance to male, but the 1st to 4th segments of protarsi are not so widened and the last visible abdominal sternite is produced backwards at the middle.

Type series. Holotype: ♂, allotype: ♀, near Bai Yun Falls on Wu-yan-ling Nature Protective Area, Tai-shun County, Zhejiang Province, China, 10–IX–1990, Y. WATANABE leg. Paratypes: 1 ♂, 3 ♀♀, same data as for the holotype.

Distribution. East China.

The present new species may be placed in the group of *L. monticola* from Japan for reason of its small body size, but can be easily distinguished from the other species of the group by having a distinct secondary sexual character of the abdomen.

The specific name is given after Professor Hiroshi TAMURA of Ibaraki University, Mito, who kindly collaborated with the authors in searching for this new species in the field.

要　約

渡辺泰明・罗 志义：中国浙江省烏岩嶺自然保護地域で採集された *Lathrobium* 属の2新種．―― 1990年に実施された中日共同学術調査によって，浙江省南部の烏岩嶺自然保護地域から採集された *Lathrobium* 属の2種を検した結果，いずれも新種と判定されたので下記のとおり命名記載した．

Lathrobium imadatei Y. WATANABE et LUO

本種は，体長および外部形態から判断すると，日本から記載された *L. brachypterum* 群に一致するが，雄の腹部腹板にあらわれる第二次性徴および交尾器の形状によって，既知のいずれの種からも区別することができる．種名は中日共同学術調査研究代表の東京医科歯科大学の今立源太良教授に献名した．

Lathrobium tamurai Y. WATANABE et LUO

本種は小型で，体長から判断すると日本から記載された *L. monticola* 群に含まれるが，雄は腹部

腹板の第二次性徴が顕著にあらわれること，および交尾器の癒合した側片先端部分が上反していることなどの点で，他種から容易に区別することができる．なお，種名は今回の調査においてハネカクシの採集にご協力いただいた茨城大学の田村浩志教授に献名した．

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Elytra, Tokyo, **20** (1): 57–60, May 15, 1992

Redescription of *Aceraius perakensis* KUWERT, 1898 (Coleoptera, Passalidae), with Re-evaluation of the Status of *A. laevimargo* ZANG, 1905[1)]

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Abstract *Aceraius perakensis* KUWERT, 1898 is redescribed on the basis of the lectotype specimen. In addition, *A. laevimargo* ZANG, 1905, previously synonymized with *A. perakensis*, is regarded as a valid species.

Aceraius perakensis was described by KUWERT (1898) from the Malay Peninsula and later, briefly redescribed by GRAVELY (1914). On the other hand, *A. laevimargo* was described by ZANG (1905) from Mt. Kinabalu, Borneo. Later, GRAVELY (1918) synonymized *A. laevimargo* with *A. perakensis*, but he showed no sufficient evidence for this account.

Recently, we had an opportunity to re-examine the lectotype of *A. perakensis* by courtesy of the Muséum National d'Histoire Naturelle, Paris, and found that it had a conspicuously diagnostic character, distinct anterior lower tooth of right mandible. This species can easily be distinguished from any other congeneric members by this diagnostic character. However, according to ZANG's (1905) original description, *A. laevimargo* lacks the anterior lower tooth of the right mandible. In this and several other external characters, *A. laevimargo* is distinctly different from the lectotype of *A. perakensis*. Thus, in the present paper, we redescribe *A. perakensis* and regard *A. laevimargo* as a valid species.

In the following redescription, we adopt the terminology of GRAVELY (1914). The abbreviations of morphometric characters are: length of left outer tubercle, from the apex of the left inner tubercle to the outer apex of the left outer tubercle (LOTL); length of the right outer tubercle (ROTL); width of the left outer tubercle at the narrowest place (LOTW); distance between the apices of inner tubercles (DIT); distance between the apical angles of supraorbital ridges (DAS); body thickness at the center of metathorax (BT); width of elytra at the shoulder (EW).

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1) This study is supported in part by a Grant-in-aid for Field Research of Monbusho International Scientific Research Program, Japan (Nos. 02041051, 01041051).

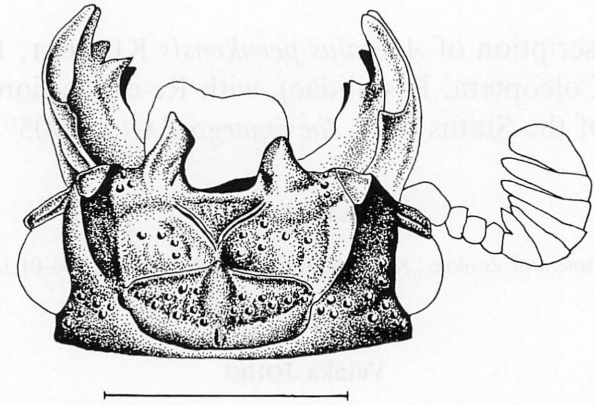

Fig. 1. *Aceraius perakensis* KUWERT (lectotype); head (scale: 5 mm), setae are omitted from this figure.

Before going further, we express our heartly thanks to S. BOUCHER and J. J. MENIER, Muséum National d'Histoire Naturelle, Paris, for giving us the opportunity to examine the lectotype of *A. perakensis*, P. REYES-CASTILLO, Instituto de Ecologie, Mexico, for useful information and T. HIKIDA, Kyoto University, for critically reading an early version of the manuscript.

Aceraius perakensis KUWERT, 1898

(Fig. 1)

Aceraius perakensis KUWERT, 1898, Novit. zool., **5**, p. 348; type locality: Perak, Malay Peninsula. —— GRAVELY, 1914, Mem. Ind. Mus., **3**, p. 229; 1918, Mem. Ind. Mus., **7**, p. 91. —— HINCKS & DIBB, 1935, Coleopterorum Catalogus, pars 142, p. 84.

Length from apical margin of head to apices of elytra 34.9 mm (n=1, lectotype; male). Body black, polished, flat; BT/EW 0.60 (n=1).

Antenna with 6 long lamellae. Labrum with setiferous hair-bearing punctures, angles rounded, anterior margin concave, left angle slightly more prominent than right one. Dentition of both mandibles complete; both upper teeth distinct, pointed forward and slightly upward, left one with truncated apex in profile, right one with acute apex in profile; right lowest terminal and anterior lower teeth distinct though smaller than left ones; anterior lower tooth distinctly divided into upper and lower portions in both mandibles. Anterior angles of head not prominent forward. Left outer tubercle narrow, larger than right one; both outer tubercles broader at base, obliquely truncated at distal end, outer angle more prominent than inner one; LOTW/LOTL 0.54 (n=1); ROTL/LOTL 0.71 (n=1). Inner tubercle distinct, pointed forward and slightly upward; DIS/DAS 0.27 (n=1). Anterior marginal wall of head between outer tubercles almost vertical. Ridge between inner tubercles distinct, slightly convex in middle; frontal ridge with a distinct groove anteriorly; supraorbital ridge with distinct apical angle pointed forward, connected with supraoccipital ridge; parietal ridge curved backward at distal portion, reaching the connecting point between supraorbital and supraoccipital ridges. Areas between frontal and parietal ridges, behind parietal ridge and behind eye with setiferous punctures; frontal area impunctate, hairless, rugose. Anterior margin of mentum slightly convex at central portion, anterior part of central portion depressed and impunctate.

Pronotum polished, impunctate except in the neighbourhood of lateral scar. Mesosternum polished with distinct scar; mesothoracic episternum polished and impunctate except at anterior portion. Ridge separating intermediate and lateral areas of metasternum distinct, impunctate, hairless; lateral area and anterior portion of intermediate area densely punctured and hairy; posterior portion of intermediate area hairless, with irregular dents, posterior margin punctured and hairy; central area impunctate and hairless.

Tenth rib of elytra densely punctured and hairy at anterior portion close to shoulder; seventh and ninth ribs very sparsely punctured along whole length.

Specimen examined. 1 ♂ (lectotype; MNHN, Paris), Perak, Malay Peninsula.

Notes. This species is easily distinguished from any other species of *Aceraius* by having the distinct anterior lower tooth of the right mandible. On the contrary, in this and several other external characters, this species seems similar to *Ophrygonius wallacei* (KUWERT, 1898) rather than to any *Aceraius* species. However, we defer the re-evaluation of the status of *A. perakensis* in relation to the genus *Ophrygonius*, until we have an opportunity to re-examine the type specimen of *O. wallacei*.

GRAVELY (1914) redescribed *A. perakensis* based on the specimens (not the type) in the collection of the Berlin Museum. However, according to GRAVELY's (1914) redescription, GRAVELY's *perakensis* is apparently distinct from the lectotype of *A. perakensis* in having the following characters: mentum without anterior depression; anterior lower tooth of the left mandible not so strongly divided; ridge between inner tubercles concave. This suggests that his redescription was based on misidentified specimens.

Aceraius laevimargo ZANG, 1905

Aceraius laevimargo ZANG, 1905, Dt. ent. Z., **1905**, p. 244; type locality: Mt. Kinabalu, Borneo. —— GRAVELY, 1914, Mem. Ind. Mus., **3**, p. 235.

Aceraius perakensis: GRAVELY, 1918, Mem. Ind. Mus., **7**, p. 91. —— HINCKS & DIBB, 1935, Coleopterorum Catalogus, pars 142, p. 84 [part].

Notes. According to ZANG's (1905) original description of *A. laevimargo*, this species is distinct from the lectotype of *A. perakensis* by the following characters: anterior lower tooth of the right mandible absent; frontal ridge curved outward or slightly backward in distal portion; mentum with punctures at anterior part of central portion; left outer tubercle almost parallel-sided, weakly bifid at the distal end; tenth rib of elytra impunctate along the whole length. Thus, *A. laevimargo* should be regarded as a valid species.

要　約

近　雅博・常喜　豊：クロツヤムシの一種 *Aceraius perakensis* の再記載と *A. laevimargo* の再評価. —— *Aceraius perakensis* を選定基準（後模式）標本にもとづき再記載した．本種は，はっきりした右の大顎の anterior lower tooth をもつことによって，*Aceraius* 属の他のすべての種から容易に区別される．また，本種の下位同物異名とされていた *A. laevimargo* は，ZANG の原記載によるといくつかの形態的特徴において *A. perakensis* の選定基準標本と明白に異なっているので，有効な種であるとみなした．

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HINCKS, W. D., & J. R. DIBB, 1935. Passalidae. *In* JUNK, W., & S. SCHENKLING (eds.), *Coleopterorum Catalogus*, pars 142: 1–118. W. Junk, Berlin.

KUWERT, A., 1898. Die Passaliden dichotomisch bearbeitet. *Novit. zool.*, **5**: 259–349.

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Elytra, Tokyo, **20** (1): 61–66, May 15, 1992

Records of Some Lucanidae and Scarabaeidae (Coleoptera) from Minna-jima and Sesoko-jima Islands of the Okinawa Group, Ryukyu Archipelago

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Abstract Two species of the Lucanidae and one of the Scarabaeidae are newly recorded from Minna-jima Island, and one Lucanidae and two Scarabaeidae from Sesoko-jima Island of the Okinawa Group, Ryukyu Archipelago. Some morphometric characters of the present specimens are described and discussed.

Introduction

Sesoko-jima Island is located about 0.8 km west of Okinawa-jima Island (i.e., 26°39′N, 127°52′E). The total length of the shore-line is 7.0 km, area 2.8 km^2 and maximum elevation 14 m. Minna-jima Island is next to Sesoko-jima Island (i.e., 26°43′N, 127°47′E), the total length of the shore-line 3.7 km, area 0.3 km^2 and maximum elevation 14 m. There are only small secondary forests on both the small islands and most of the surface are covered with grasses. Up to date, though some records of butterflies have been made (Araki, 1978; Higa, 1979, 1982), little is known about the beetle fauna of these islands. In this brief report, two species of the Lucanidae and one of the Scarabaeidae will be recorded from Minna-jima Island, one Lucanidae and two Scarabaeidae from Sesoko-jima Island, all new to the fauna of the islands.

Materials and Methods

All the specimens from Minna-jima Island were collected by Mr. M. Hinoue, Kyoto University on 7–23 August 1991. Beetles from Sesoko-jima Island were collected on 29 August 1991 by Mr. K. Nakai, Kyoto University. Species (subspecies) identification of the present specimens were made by observing the shape of genitalia as well as the external characters. The body length and some morphometric characters were measured for the specimens of lucanid beetles as shown in Fig. 1. The measured characters were body length (BL, without mandibles), right mandible length (RML, female specimens were omitted), position of the largest serra of the right mandible (PBSR, female specimens were omitted), pronotal width (PW), elytral width (EW), elytral length (EL), right front-tibial width (RFTW) and right front-tibial length (RFTL). The morphometric characters of *Serrognathus platymelus* presently collected from Minna-jima Island were compared to those from Okinawa-jima Island.

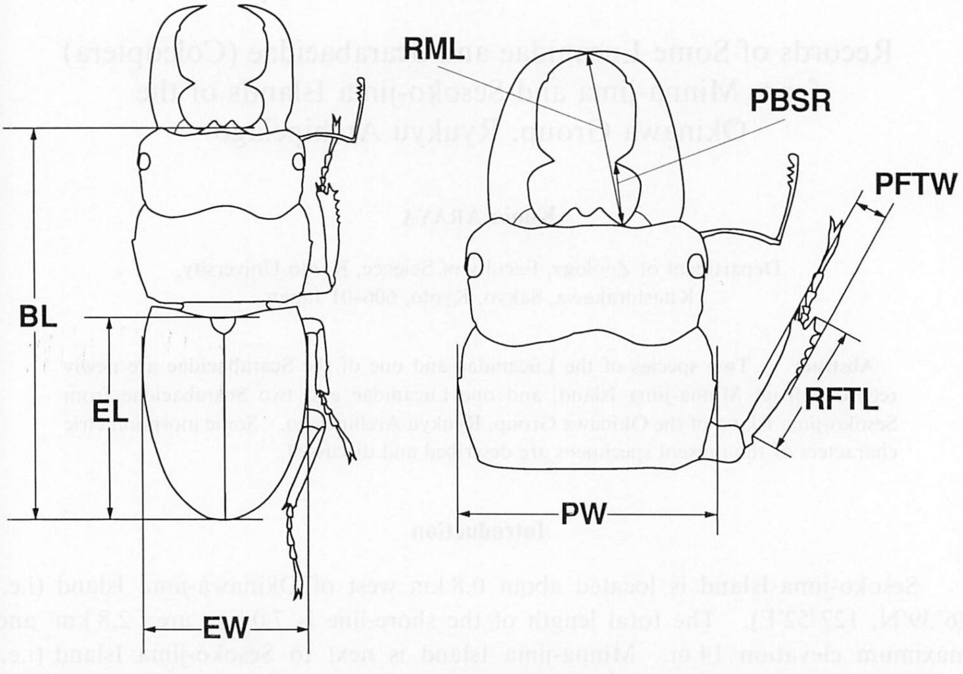

Fig. 1. Schematic diagram of measured characters of lucanid beetles (*Serrognathus platymelus okinawanus*). BL: body length without mandibles, RML: right mandible length, PBSR: position of largest serra of right mandible, PW: pronotal width, EW: elytral width, EL: elytral length, RFTW: right front-tibial width, RFTL: right front-tibial length. When measuring RML and PBSR, the tips of mandibles are kept in touch as shown in the figure.

All the present specimens were deposited in the entomological collection of the Department of Zoology, Kyoto University (catalogued as KUZI).

Results

Lucanid and scarabaeid beetles collected from the two islands are listed below.

I. *Minna-jima Is.*

Lucanidae

Serrognathus platymelus okinawanus. 4 ♂♂, 1 ♀, 7–VIII–1991; 15 ♂♂, 12 ♀♀, 8–VIII–1991; 4 ♂♂, 3 ♀♀, 9–VIII–1991.

Collection. The present specimens were collected at light.

Morphometric features. The variation of each character is given in Table 1. The results of the comparisons to *S. p. okinawanus* from Okinawa-jima Island are also presented in Table 1 and Fig. 2.

Prosopocoilus dissimilis. 1 ♀, 23–VIII–1991.

Collection. The present specimen was collected on the road, and partly damaged.

Morphometric features. BL 29.9 mm, EW 13.65 mm, EL 18.30 mm, RFTW 2.44 mm, RFTL 7.15 mm. The other characters were not measured because of the damage.

Scarabaeidae

Oryctes rhinoceros. 1 ♂, 1 ♀, 8–VIII–1991.

Collection. The present speciemens were collected at light.

Morphometric features. Male specimen, BL 41.35 mm, EW 19.65 mm; female specimen, BL 37.80 mm, EW 18.60 mm.

II. *Sesoko-jima Is.*

Lucanidae

Prosopocoilus dissimilis. 1 ♀, 29–VIII–1991.

Collection. The present speciemen was collected at light.

Morphometric features. BL 26.4 mm, PW 11.25 mm, EW 12.20 mm, EL 16.85 mm, RFTW 2.05 mm, RFTL 6.90 mm.

Scarabaeidae

Oryctes rhinoceros. 1 ♂, 29–VIII–1991.

Collection. The present speciemen was collected at light.

Morphometric features. BL 40.25 mm, EW 18.45 mm.

Anomala albopilosa yashiroi. 1 ♂, 29–VIII–1991.

Collection. The present specimen was collected at light.

Morphometric features. BL 18.40 mm, EW 9.60 mm.

Discussion

The range of the male body size of *Serrognathus platymelus okinawanus* collected from Minna-jima Island leans toward smaller size than that of Okinawa-jima Island, but no significant difference in body length is found between them ($p>0.05$, by Mann-Whitney's U-test). This may be due to the fact that all the present samples from Minna-jima Island came flying to lights. Moreover, there is no significant difference between the samples of the two islands in the ratio RML/PBSR, EW/EL and RFTW/RFTL ($p>0.05$, by test for homogeneity of positions, Fig. 2) which were used as the diagnostic characters in discriminating the subspecies of *S. platymelus* (FUJITA & ICHIKAWA, 1985, 1986; FUJITA & OKUDA, 1989; *S. platymelus* is regarded as *S. titanus* in these papers). It is suggested that the population of *S. p. okinawanus* of Minna-jima Island is identical with that of Okinawa-jima Island in quantitative morphometric characters as well as in qualitative ones. *Serrognathus p. okinawanus* of Minna-jima Island may have immigrated from Okinawa-jima Island very recently by rafting or

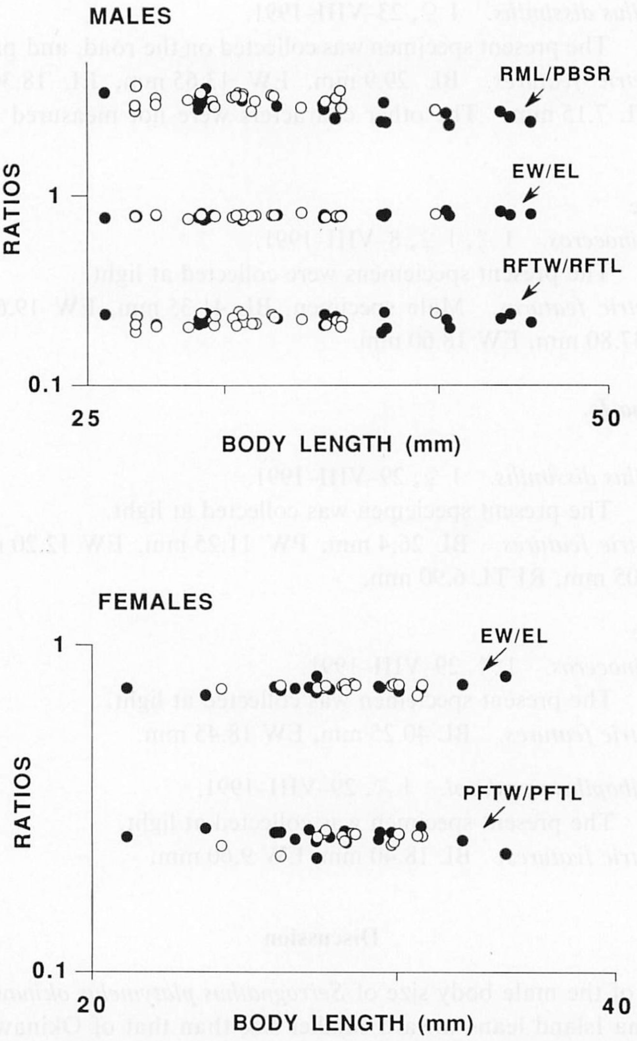

Fig. 2. The ratios RML/PBSR, EW/EL and PFTW/PFTL of *Serrognathus platymelus okinawanus* from Okinawa-jima Is. and Minna-jima Is. ●: samples from Okinawa-jima Is., ○: samples from Minna-jima Is. See Fig. 1 for abbreviations.

flying. *Serrognathus p. okinawanus* has been known from Okinawa-jima Island, Kume-jima Island, Tokashiki-jima Island (Okajima & Yamaguchi, 1988), Ize-jima Island (Kusui, 1976), Iheya-jima Island (Kusui, 1991), and newly Minna-jima Island. There is a good possibility that this subspecies will be collected from the other islets around Okinawa-jima Island. The female specimens of *Prosopocoilus dissimilis* from the two islands must belong to *P. d. okinawanus* described from Okinawa-jima Island, though I was unable to identify them exactly.

Table 1. Comparison of the morphometric characters of *S. p. okinawanus* collected from Okinawa-jima Island and Minna-jima Island. Value for each sample is represented by mean±SD (mm) with ranges in parentheses. See Fig. 1 for abbreviations.

Characters	Okinawa-jima		Minna-jima	
	Male (n=20)	Female (n=19)	Male (n=25)	Female (n=16)
BL	34.60±5.86 (25.60–45.20)	27.80±3.19 (20.95–34.65)	30.94±3.20 (26.65–39.85)	28.20±1.89 (23.75–31.05)
RML	10.35±3.18 (5.35–15.05)	— (—)	8.76±2.23 (5.40–15.00)	— (—)
PBSR	3.78±1.53 (1.55– 6.25)	— (—)	2.82±0.80 (1.45– 5.40)	— (—)
PW	15.19±3.11 (10.45–20.30)	12.05±1.49 (8.70–15.10)	13.60±1.58 (11.20–18.40)	12.40±0.84 (10.50–13.95)
EW	14.73±2.50 (10.90–18.90)	12.49±1.50 (9.60–15.95)	13.43±1.27 (11.60–17.05)	12.76±0.86 (10.65–14.25)
EL	18.93±2.86 (14.35–23.90)	16.76±1.73 (13.00–19.85)	17.28±1.59 (14.85–21.55)	17.10±1.11 (14.50–18.85)
RFTW	2.06±0.41 (1.45– 2.85)	1.74±0.18 (1.25– 2.00)	1.85±0.26 (1.40– 2.65)	1.79±0.17 (1.45– 2.05)
RFTL	9.43±1.86 (6.20–12.20)	6.72±0.78 (4.85– 8.05)	8.53±0.96 (7.00–11.15)	7.05±0.52 (6.00– 8.00)

As was suggested by Kusui (1991), *Oryctes rhinoceros* may have invaded from the Yaeyama Islands or a foreign country to Okinawa-jima Island and have spread their habitats to nearby islets. *Anomala albopilosa yashiroi* is the subspecies common to Okinawa-jima Island and the Iheya Islands (Nomura, 1966; Kusui, 1976, 1981, 1991; Kobayashi, 1988).

Further investigations on the beetle fauna of the small islands of the Okinawa Group are required. And then, more detailed comparison on morphometric characters as well as on qualitative ones should be made for making discussions on the specialization and zoogeography of the insect fauna of the Okinawa Group.

Materials Compared

Serrognathus platymelus okinawanus:

[Okinawa-jima] 1 ♀, Izumi, Motobu-chô, 26–VII–1974; 1 ♂, Mt. Yonahadake, 27–VII–1974, Y. Okuda leg.; 1 ♀, Izumi, Motobu-chô, 28–VII–1974, I. Kiyose leg.; 1 ♂, 1 ♀, Izumi, Motobu-chô, VIII–1981, Akimoto leg.; 1 ♂, Mt. Yonahadake, 28–IX–1982; 2 ♂♂, Kunigami-son, VIII–1983; 12 ♂♂, 2 ♀♀, Kunigami-son, 11∼12–X–1988, K. Araya leg.; 4 ♂♂, 13 ♀♀, Kunigami-son, 4∼5–VII–1991, M. Matsui leg.

Prosopocoilus dissimilis okinawanus:
[Okinawa-jima] 2 ♀♀, Toguchi, Motobu-chô, 11–VIII–1991, M. HINOUE leg.

Acknowledgements

I wish to thank Messrs. M. HINOUE and K. NAKAI, Kyoto University, for collecting the beetles. I also thank Dr. M. MATSUI, Kyoto University, and Mr. T. OBUCHI for their kindness in offering the samples of *S. p. okinawanus* collected from Okinawa-jima Island, and Dr. M. KON, Kyoto University, for his critical reading of the manuscript of this paper.

要　　約

荒谷邦雄：琉球列島，沖縄諸島の水納島および瀬底島からのクワガタムシ科とコガネムシ科の記録．——琉球列島，沖縄諸島の水納島より，クワガタムシ科２種とコガネムシ科１種，瀬底島よりクワガタムシ科１種とコガネムシ科２種の甲虫がそれぞれ新たに採集，記録された．今回採集された標本の形態について，いくつかの計測形質 (morphometric characters) を記載し，検討を加えた．

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Elytra, Tokyo, **20** (1): 67–71, May 15, 1992

Notes on the Coleopteran Fauna of Malaysia

I. The Malaysian Species of the Genus *Elmomorphus* (Dryopidae)[1]

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Abstract Three Malaysian species of the dryopid genus *Elmomorphus* are dealt with. One of them is identified with *E. bryanti* HINTON, while the other two are newly described under the names *E. yongi* and *E. malayanus*.

Only a single species of the genus *Elmomorphus* has hitherto been known from Malaysia. Through the field researches made in Malaysia for three times, I was able to collect many specimens of the genus, and after a careful study, realized that three different species were included in the collection. One of them is a known species, *E. bryanti* HINTON, while the other two are new to science, as will be described in the persent paper.

A part of this study was carried out under the arrangement of cooperation between the National Science Museum, Tokyo, and the University of Malaya, Kuala Lumpur.

Before going further, I with to express my hearty thanks to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, Professor YONG Hoi-Sen of the University of Malaya and Professor Emeritus Taiji IMAMURA for their kind support of my study in various ways.

Elmomorphus yongi M. SATÔ, sp. nov.

(Figs. 1, 4)

Body oblong oval, distinctly convex, shining, sparsely and finely pubescent above, the pubescence arising from punctures, and closely tomentose beneath except on prosternal process and the median areas of meso- and metasterna. Dorsal surface black with brownish tinge; ventral surface brownish black; femora and tibiae black to brownish black; mouth parts and tarsi brown to yellowish brown.

Head somewhat flattened, finely and rather sparsely punctate, the punctures being separated from one another by 2 to 3 times their diameter; integument micro-reticulate; labrum transverse, micro-reticulate, with more or less long pubescence along the anterior margin which is distinctly emarginate. Pronotum about 1.8 times

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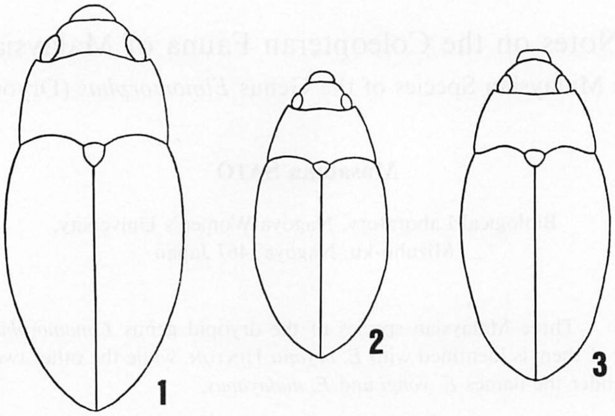
[1] This study is supported by the Grants-in-aid for Overseas Scientific Research Nos. 62041074 and 63043075 from the Ministry of Education, Science and Culture, Japan.



Figs. 1–3. Outline of body. —— 1, *Elmomorphus yongi* M. SATÔ, sp. nov.; 2, *E. malayanus* M. SATÔ, sp. nov.; 3, *E. bryanti* HINTON.

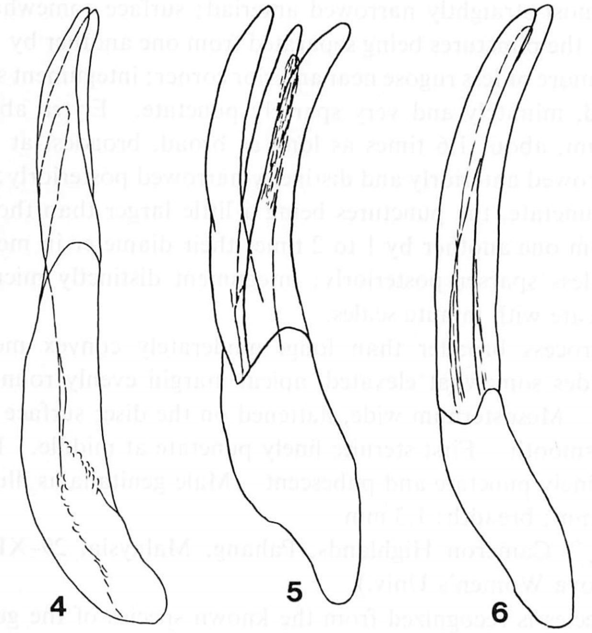
as broad as long, broadest at the base which is about 1.7 times as broad as the anterior breadth; sides almost straightly narrowed anteriad; surface finely and sparsely punctate, the punctures being separated from one another by 3 to 4 times their diameter and becoming finer posteriorly; integument smooth, though finely micro-reticulate near each corner. Scutellum shield-shaped, minutely and very sparsely punctate. Elytra about 1.2 times as broad as pronotum, about 1.6 times as long as broad, broadest at the middle, thence gently narrowed anteriorly and distinctly narrowed posteriorly; surface finely and sparsely punctate, the punctures being a little smaller than those on pronotum and separated from one another by 3 to 5 times their diameter in most areas and more or less sparser anteriorly and posteriorly; integument smooth except for the small apical area which is obliquely imbricate with minute scales; each elytron provided with 7 vague punctate striae.

Prosternal process broader than long, moderately convex medially, broadest near the apex; sides distinctly rimmed, apical margin evenly rounded; surface finely and minutely punctate. Mesosternum wide, flattened on the disc; surface finely and sparsely punctate, and transversely strigose at the central area and longitudinally strigose at the sides, the punctures being separated from one another by 3 to 5 times their diameter; integument smooth; anterior margin moderately emarginate; front lateral areas shallowly hollowed. First sternite finely punctate at middle and provided with a subcariniform line on each side of discal area, which does not extend to the posterior margin. Legs rather long, slender; femora finely punctate and pubescent; tibiae provided with a fringe of close pubescence. Male genitalia as illustrated.

Sexual dimorphism not pronounced.

Length: 3.8–4.2 mm; breadth: 1.8–2.0 mm.

Holotype: ♂, Cameron Highlands, Pahang, Malaysia, 7～8–I–1973, M. SATÔ leg. (in coll. Natn. Sci. Mus. (Nat. Hist.), Tokyo). Paratypes: 6 exs., same data as



Figs. 4–6. Male genitalia. —— 4, *Elmomorphus yongi* M. Satô, sp. nov.; 5, *E. malayanus* M. Satô, sp. nov.; 6, *E. bryanti* Hinton.

for the holotype; 2 exs., Cameron Highlands, 4–II–1975, T. Imamura leg.; 2 exs., ditto, 1–XII–1968, M. Satô leg.

This species somewhat resembles *E. javanicus* (Grouvelle) in general appearance, but is discriminated from the latter by having fine striae on the elytra and fine punctation on the dorsal surface.

The specific name is given in honour of Professor Yong Hoi-Sen who is the leading naturalist in Malaysia and gave facilities for our research.

Elmomorphus malayanus M. Satô, sp. nov.

(Figs. 2, 5)

Body oblong-oval, moderately convex, somewhat shining, sparsely and finely pubescent above, the pubescence arising from punctures, and closely tomentose beneath. Dorsal surface dark brown; ventral surface brown; femora dark brown, tibiae brown and tarsi yellowish brown.

Head somewhat flattened, distinctly and sparsely punctate, the punctures being separated from one another by 1 to 2 times their diameter; integument smooth on most areas and micro-reticulate on the anterior area; labrum transverse, micro-reticulate, with the anterior margin slightly emarginate. Pronotum about 1.9 times as broad as long, broadest at the base which is about 1.6 times as broad as the anterior breadth; sides almost straightly narrowed anteriad; surface somewhat distinctly and sparsely punctate, the punctures being separated from one another by 1 to 2 times their diameter, though more or less rugose near anterior corner; integument smooth. Scutellum shield-shaped, minutely and very sparsely punctate. Elytra about 1.2 times as broad as pronotum, about 1.6 times as long as broad, broadest at the apical third, thence gently narrowed anteriorly and distinctly narrowed posteriorly; surface distinctly and sparsely punctate, the punctures being a little larger than those on pronotum and separated from one another by 1 to 2 times their diameter in most areas and becoming more or less sparser posteriorly; integument distinctly micro-reticulate, the apical area imbricate with minute scales.

Prosternal process broader than long, moderately convex medially, broadest near the apex; sides somewhat elevated, apical margin evenly rounded; surface obsoletely punctate. Mesosternum wide, flattened on the disc; surface obsoletely punctate, integument smooth. First sternite finely punctate at middle. Legs rather long, slender; femora finely punctate and pubescent. Male genitalia as illustrated.

Length: 2.2 mm; breadth: 1.3 mm.

Holotype: ♂, Cameron Highlands, Pahang, Malaysia, 29–XI–1968, M. SATÔ leg. (in coll. Nagoya Women's Univ.).

This new species is recognized from the known species of the genus on its small size.

Elmomorphus bryanti HINTON

(Figs. 3, 6)

Elmomorphus bryanti HINTON, 1935, Stylops, 4: 171.

This species is rather common in small streams.

Specimens examined. 9 exs., Cameron Highlands, Pahang, Malaysia, 29–XI–1968, M. SATÔ leg.; 3 exs., ditto, 30–XI–1968, M. SATÔ leg.; 2 exs., ditto, 1–XII–1968, M. SATÔ leg.; 1 ex., ditto, 7～8–I–1973, M. SATÔ leg.; 2 exs., Fraser's Hill, Malaysia, 20–VII–1987, M. SATÔ leg.

Distribution. Malaysia.

Key to the Malaysian Species of the Genus *Elmomorphus*

1 (2) Body more than 3.8 mm in size; colour black; each elytron provided with seven striae which consist of minute punctures.... *E. yongi* M. SATÔ, sp. nov.

2 (1) Body less than 3.5 mm in size; colour brownish to brownish black; elytra without punctate striae.

3 (4) Colour dark brown; ventral surface obsoletely punctate; length 2.2 mm...... ....*E. malayanus* M. SATÔ, sp. nov.

4 (3) Colour brownish black; ventral surface finely punctate; length 2.9–3.5 mm ....*E. bryanti* HINTON, 1935.

要　約

佐藤正孝：マレーシアの甲虫相に関する覚え書き．I．マレーシア産ツヤムネドロムシ属．——マレーシアに産するツヤムネドロムシ属について検討の結果，3種を認めることができた．それらのうち，1種は既知種の*Elmomorphus bryanti* HINTONであるが，2種は新種と認められたので，以下のように記載した．

1．*Elmomorphus yongi* M. SATÔ

正基準標本：雄，キャメロンハイランド，マレーシア，7～8-I-1973，佐藤正孝採集．

黒色で光沢のある種で，体長は3.8～4.2 mmと大型，雄交尾器中央片が短いことなどから他の種と容易に区別できる．

上記産地の小渓流で得られた．

種名は，マラヤ大学でナチュラリストとして著名なヨン・ホイセン教授に献名したものである．

2．*Elmomorphus malayanus* M. SATÔ

正基準標本：雄，キャメロンハイランド，マレーシア，29-XI-1968，佐藤正孝採集．

濃褐色で，体長が2.2 mmと小型であることによって他の種と区別できる．

上記産地の小渓流で得たが，かなり以前のことで具体的な場所については記憶が確かでない．

3．*Elmomorphus bryanti* HINTON, 1935

各地に普通の種だと思われる．正基準標本は，1932年にマレーシアの首都クアラルンプールの灯火で得られたもので，現在は大英自然史博物館に所蔵されている．

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Elytra, Tokyo, **20** (1): 72, May 15, 1992

Records of Some Carabidae from Yap Island of Micronesia

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Through the courtesy of Mr. Yasuo TOMIDA of Mie Prefectural Museum, we had an opportunity to examine some carabid beetles collected on Yap Island of Micronesia. We are going to give here a list of the species in his collection, two of which with asterisks are new to the fauna of Yap. We thank Mr. TOMIDA for his kindness in offering the materials.

1. *Tachys ochrioides* DARLINGTON, 1962
   1 ex., Worowo', Rull, Is. Yap, 7–VII–1974; 2 exs., Tomil, Is. Yap, 8–VII–1974, Y. TOMIDA leg.
2. **Tachys ceylanicus* (NIETNER, 1858)
   1 ex., Worowo', Rull, Is. Yap, 6–VII–1974, Y. TOMIDA leg.
3. *Tachys yunax* DARLINGTON, 1939
   1 ex., Worowo', Rull, Is. Yap, 6–VII–1974, Y. TOMIDA leg.
4. **Stenolophus quinquepustulatus* (WIEDEMANN, 1823)
   2 exs., Worowo', Rull, Is. Yap, 6–VII–1974; 2 exs., Tomil, Is. Yap, 8–VII–1974, Y. TOMIDA leg.
5. *Perigona nigriceps* (DEJEAN, 1831)
   1 ex., Worowo', Rull, Is. Yap, 6–VII–1974; 4 exs., ditto, 9–VII–1974; 10 exs., Tomil, Is. Yap, 8–VII–1974; 1 ex., Colonia, Weloy, Is. Yap, 9–VII–1974, Y. TOMIDA leg.
6. *Pentagonica erichsoni* SCHMIDT-GOEBEL, 1848
   1 ex., Tomil, Is. Yap, 8–VII–1974, Y. TOMIDA leg.

Elytra, Tokyo, **20** (1): 73–78, May 15, 1992

Two New Elaterid Beetles (Coleoptera, Elateridae) from Taiwan

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Abstract Two new elaterid beetles, *Scutellathous yamashitai* sp. nov. and *Actenicerus takeshii* sp. nov., are described from Taiwan. The former closely resembles *S. comes* (LEWIS) and the latter is similar to *A. nagaoi* ÔHIRA in general characters.

Recently, I had an opportunity to study many specimens of elaterid beetles from Taiwan through the courtesy of my friends. I have concluded that two species of them are new to science, as will be described below. The holotype of each species designated in this paper is deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Before going further, I wish to express my sincere gratitude to Dr. Hitoo ÔHIRA for his constant guidance, and to Dr. Wataru SUZUKI for valuable advice on the present study. I am also indebted to Messrs. Akira YAMASHITA, Yoshio WATANABE and Takeshi ITOH for their kind offer of materials.

Scutellathous yamashitai sp. nov.

(Figs. 1–4)

Male. Length 12.6 mm; width 2.8 mm.

Body elongate, almost parallel-sided, flattened above and shining. Color dark brown; most parts of under surfaces brown to dark brown; mouth-parts yellowish brown except for dark brown apical portions of mandibles. Dorsal surface clothed with moderately long, subrecumbent, whitish yellow pubescence; ventral surface with whitish pubescence.

Head subquadrate; anterior frons broadly and triangularly impressed between eyes; surfaces deeply punctate, the punctures becoming denser laterad; clypeal margin distinctly prominent, slightly rounded and impressed at the middle, well raised over antennal insertions; apical segment of each maxillary palpus hatchet-like in shape and about 1.6 times as long as broadest width; labrum transversely ovate, with surface unevenly, coarsely and rugosely punctate; clypeal area transverse, broad and somewhat narrowed at the middle, unevenly and strongly rugose. Eyes large and prominent outwards. Antennae rather long, extending beyond tips of posterior angles of pronotum at least by apical two segments; basal segment robust and subclavate; second short, obconic and slightly longer than wide; third elongate triangular, about twice

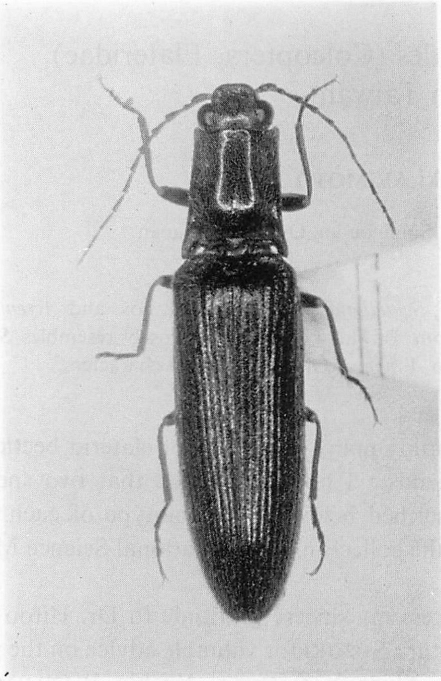

Fig. 1. *Scutellathous yamashitai* sp. nov., holotype, from Sungkang, Nantou Hsien, Taiwan.

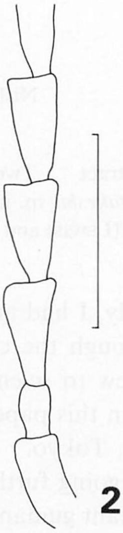

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Fig. 2. Right antenna of *S. yamashitai* sp. nov. Scale: 1 mm.

as long as second and a little longer than fourth; third to tenth serrate; apicalmost the longest and about 5.5 times as long as its broadest width.

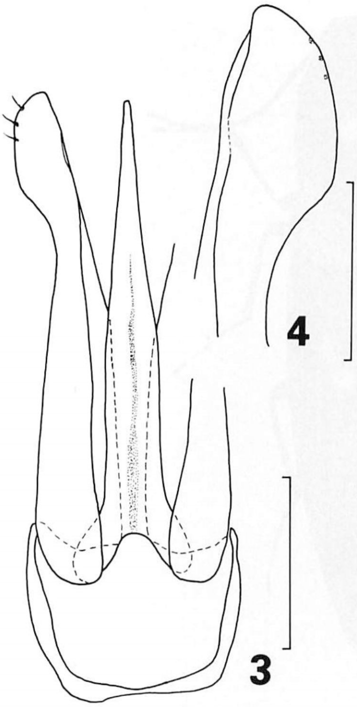
Pronotum quadrate; about 1.2 times as long as the basal width, with sides slightly convergent from base to just befor anterior angles which are slightly divergent and prominent; disc gently convex above, with a shallow median longitudinal impression in basal half; surface smooth and shining, sparsely and evenly punctate, though the punctures become denser laterad; posterior angles short, projecting postero-laterally, each with a distinct carina above.

Scutellum tongue-shaped, subvertical, with the sides somewhat constricted at basal fourth; surface coarsely punctate and longitudinally elevated in posterior half.

Elytra about 2.9 times as long as humeral width; sides almost parallel in basal two-thirds, then weakly rounded and gradually convergent towards apices; striae well defined, coarsely, unevenly and elongately punctate; intervals slightly elevated, irregularly punctate and transversely rugose.

Legs slender, under surfaces of apical end of second tarsal segments somewhat lobed beneath, the third more clearly lobed than the second; claws simple.

Propleura densely punctate. Prosternum rather sparsely punctate, the punctures sparser than those of pronotum; prosternal process elongate, weakly incurved behind



Figs. 3–4. Aedeagus of *S. yamashitai* sp. nov. Scales: 0.5 mm (for Fig. 3) and 0.2 mm (for Fig. 4).

procoxae, with obtusely pointed apex. The punctures on metasternum smaller and sparser than those of prosternum. Abdomen elongate and densely punctate.

Aedeagus as illustrated (Figs. 3–4); median lobe slightly shorter than lateral lobes, apex of each lateral lobe clearly depressed and furnished with some short setae.

Female. Length 11.5 mm; width 2.5 mm. Similar to male in general characters. Body more parallel-sided; antennae shorter, the third segment about 2.3 times as long as the second.

Holotype: ♂, Sungkang, Nantou Hsien, Taiwan, 20–VI–1983, A. YAMASHITA leg. Paratype: 1 ♀, same locality as for the holotype, 15–VII–1977, Y. WATANABE leg.

Notes. This new species is allied to *Scutellathous comes* (LEWIS, 1894) from Japan, but can be distinguished from the latter by the following points: 1) The color is darker. 2) The punctures on the pronotum are smaller and sparser. 3) The anterior angles of pronotum are divergent.

Actenicerus takeshii sp. nov.

(Figs. 5–8)

Male. Length about 16.0 mm; width about 3.8 mm.

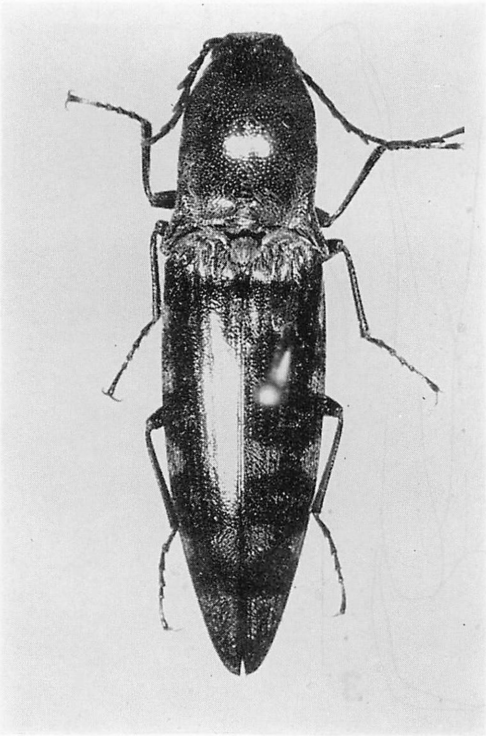


Fig. 5. *Actenicerus takeshii* sp. nov., holotype, from Pinglin, Taipei Hsien, Taiwan.

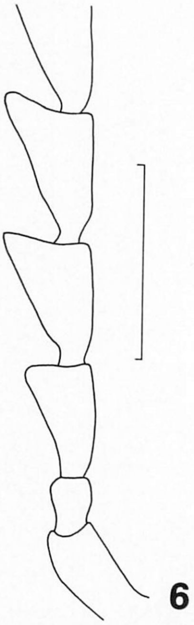
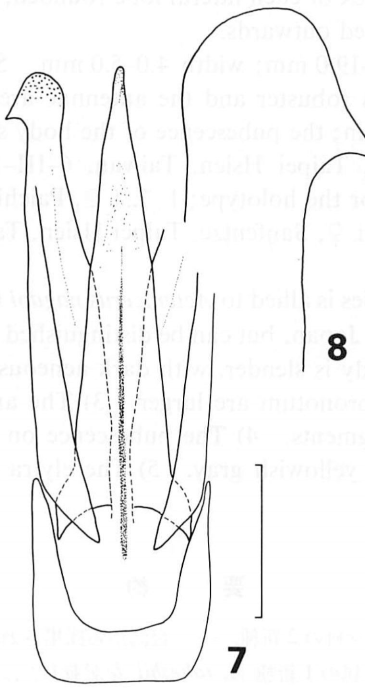


Fig. 6. Right antenna of *A. takeshii* sp. nov. Scale: 1 mm.

Body elongate, subparallel-sided, somewhat depressed above and shining. Colour black with dark aeneous luster, legs dark brown to black, and claws reddish brown. Dorsal surface clothed with long, recumbent, whitish gray pubescence; ventral surface with long, recumbent, whitish yellow pubescence which is rather densely set. Pronotum and elytra irregularly scattered with brown to black pubescence forming speckles.

Head quadrate, slightly convex between eyes, flattened and slightly impressed between antennae; surface densely and coarsely punctate; clypeal margin transverse, well ridged before and over antennal insertions, obliterated at the middle; apical segment of each maxillary palpus hatchet-like in shape and about 1.9 times as long as its broadest width; labrum semicircular, somewhat convex above, with surface coarsely and rugosely punctate. Antennae extending beyond posterior angles of pronotum at least by apical two segments; basal segment robust and clavate; second short, subconic and slightly longer than wide; third elongate triangular, about 2.2 times as long as the second and a little shorter than the fourth; third to tenth strongly serrate; apicalmost the longest, about 3.3 times as long as its broadest width.

Pronotum elongate, about 1.3 times as long as the basal width, with sides almost



Figs. 7–8. Aedeagus of *A. takeshii* sp. nov. Scales: 0.5 mm (for Fig. 7) and 0.2 mm (for Fig. 8).

parallel just before posterior angles to apical fourth, then feebly arcuate and clearly convergent towards anterior angles; disc gently convex above, with a shallow median longitudinal impression in basal half; surface smooth and shining, sparsely and evenly punctate, the punctures becoming denser and larger laterad; posterior angles elongate, projecting postero-laterally, each with a distinct carina above.

Scutellum tongue-shaped, posterior end rounded, gently and longitudinally convex at the middle, densely punctate.

Elytra about 2.8 times as long as humeral width; sides almost parallel in basal halves, then weakly rounded and gradually narrowed towards apices; striae fine, coarsely bearing elongate punctures; intervals slightly elevated, coarsely punctate and transversely rugose.

Legs slender, with tarsi and claws simple.

Propleura densely and evenly punctate, the punctures smaller and sparser than those of lateral pronotal areas. Mediolongitudinal portion of prosternum very sparsely and umbilicately punctate, the punctures becoming larger and denser laterad, prosternal process elongate, weakly incurved behind procoxae, then straightly projecting apicad, with apex obtusely pointed.

Aedeagus as illustrated (Figs. 7–8); median lobe as long as lateral lobes, gradually narrowed towards apex; apex of each lateral lobe rounded, with preapical outer angle acutely and obliquely pointed outwards.

Female. Length 17.5–19.0 mm; width 4.0–5.0 mm. Similar to male in general characters, but the body is robuster and the antennae are shorter, not reaching the posterior angles of pronotum; the pubescence of the body surface is more yellowish.

Holotype: ♂, Pinglin, Taipei Hsien, Taiwan, 6–III–1979, T. ITOH leg. Paratypes: 1 ♀, same data as for the holotype; 1 ♂, 1 ♀, Paichi, Taoyuan Hsien, Taiwan, 30–III–1979, T. ITOH leg.; 1 ♀, Sanfentze, Taipei Hsien, Taiwan, 2–IV–1979, T. ITOH leg.

Notes. This new species is allied to *Actenicerus nagaoi* ÔHIRA, 1967, from Amami-Oshima Is. of the Ryukyus, Japan, but can be distinguished from the latter by the following points: 1) The body is slender, with dark aeneous luster. 2) The punctures on the lateral portion of pronotum are larger. 3) The antennae are more strongly serrate from the fourth segments. 4) The pubescence on the body is whitish gray, while that of *A. nagaoi* is yellowish gray. 5) The elytra are more weakly rounded apically.

要　約

有本久之: 台湾産コメツキムシ科の2新種. —— 台湾から採集された *Scutellathous* 属の1新種 *S. yamashitai* と *Actenicerus* 属の1新種 *A. takeshii* を記載した. 前者は, *S. comes* (LEWIS) に非常によく似ているが, 前胸背板の形状や点刻, 雄生殖器の外片の形態などの差異によって区別できる. 後者は, *A. nagaoi* ÔHIRA に似ているが, より細い体形, より黒い体色, 触角の形態などの差異によって区別できる.

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Elytra, *Tokyo*, **20**(1): 79–82, May 15, 1992

キアシミズギワコメツキの形態について

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Notes on the Morphological Structure of *Fleutiauxellus tutus* (Coleoptera, Elateridae) from Japan

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Abstract　*Fleutiauxellus tutus* was originally described by G. LEWIS (1984) from Fukushima in Nagano Prefecture, under the generic name of *Cryptohypnus*. Recently, I had an opportunity to examine the type specimen of this species through the courtesy of Miss VON HAYEK of the British Museum (N.H.), as shown in Fig. 1. General structures of this unique species examined by SEM-images (Fig. 2) are described for facilitating recognition of its systematic status in the genus *Fleutiauxellus* of the Negastriinae from Japan.

本種は，G. LEWISが採集した標本にもとづいて，同氏自身が新種として1894年に記載した，小型で黒色の種である．原記載以降，青森県から岡山県にいたる各地からの分布記録がみられるが，形態について詳しく研究された報告はない．また，分布記録についても，同定の誤りによると思われるものがあるので，分布の実態についての再調査も必要だと思われる．

筆者はこのたび，本種の基準標本を検することができ，形態について詳しく調査したのでここに報告する．本文を草するにあたり，本種の基準標本を貸与され，種々ご教示をいただいたVON HAYEK女史に心からお礼を申し上げる．

種　の　概　要

本種は，G. LEWISが長野県の木曽福島付近で採集した標本にもとづいて，*Cryptohypnus tutus*と自身で命名し，1894年に新種として記載した種である．採集した個体数は不明であるが，VON HAYEK女史によれば，現在British Museum (N.H.)には，G. LEWISの自筆の同定ラベルが付された1頭が保管されているということである．それは図示(Fig. 1)したような個体で，産卵管が認められるので雌個体である．標本の台紙の裏面には鉛筆で28/8/81の記入がある．BATES (1883)の記録によれば，G. LEWISはその日に，群馬県の前橋に滞在していたことになっている．原記載に記録されている産地の福島は1881年7月26日の滞在になっているので，原記載に与えられた産地と台紙に記入されている日付から推定した産地とに相違がみられる．どちらが正しいかは，これ以外に確認資料がないので不明である．

本種は一般に初夏に多く見出されるため，成虫が採集できる可能性は木曽福島の方が高いが，基準

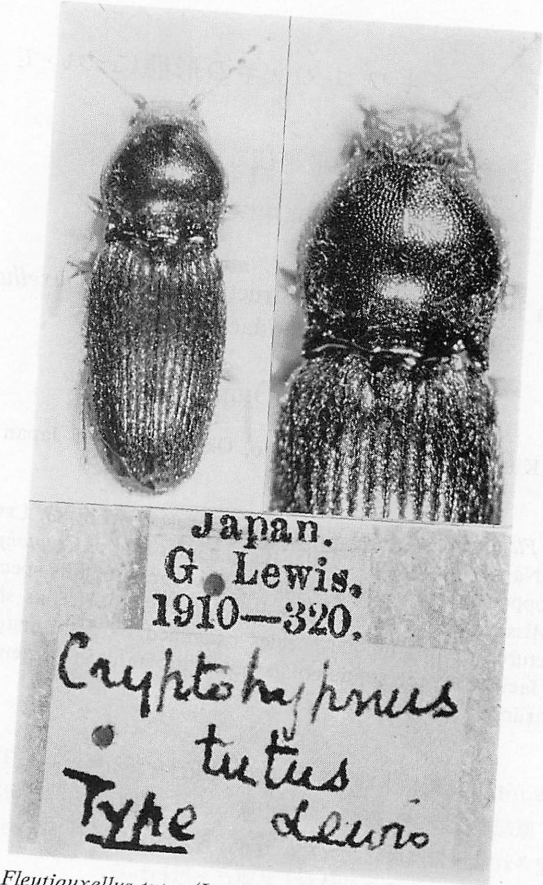

Fig. 1. Holotype of *Fleutiauxellus tutus* (Lewis, 1894) and its labels in the collection of the British Museum (N.H.).

標本が雌固体であることを考えると，8 月下旬でも採集できる可能性はあるように思われる．しかし，どちらかが誤記であっても，原記載に明記された産地が，唯一の公式産地なので，ここでは基準産地が木曽福島であるとして扱うことにする．

本種の一般外形は，近似種のミズギワコメツキ (*F. curatus*) にきわめてよく似ており，原記載でも "Should be placed next to *C. curatus*, Cand." と述べている．原記載上で比較するかぎり，これら両種の相違点は肢の色 (本種では黄色い) くらいである．また，本種は Saghalien からも記録されているが，これは明らかに同定の誤りに基づくものと思われるし，九州からの記録も再調査が必要である．

本種の属名として，最近は *Migiwa* が用いられてきたが，大平 (1988) の研究にしたがって，*Fleutiauxellus* 属の種として扱うことにする．

形 態 の 概 要

体長は 3.5～4 mm. 体は幅広くて両側は平行状である．黒色で光沢を有し，上翅は黒色またはやや黒褐色，全面に灰黄色毛を生ずる．上翅は長毛と短毛を混生しない．触角の基部 3 節 (ときに基部 2 節)

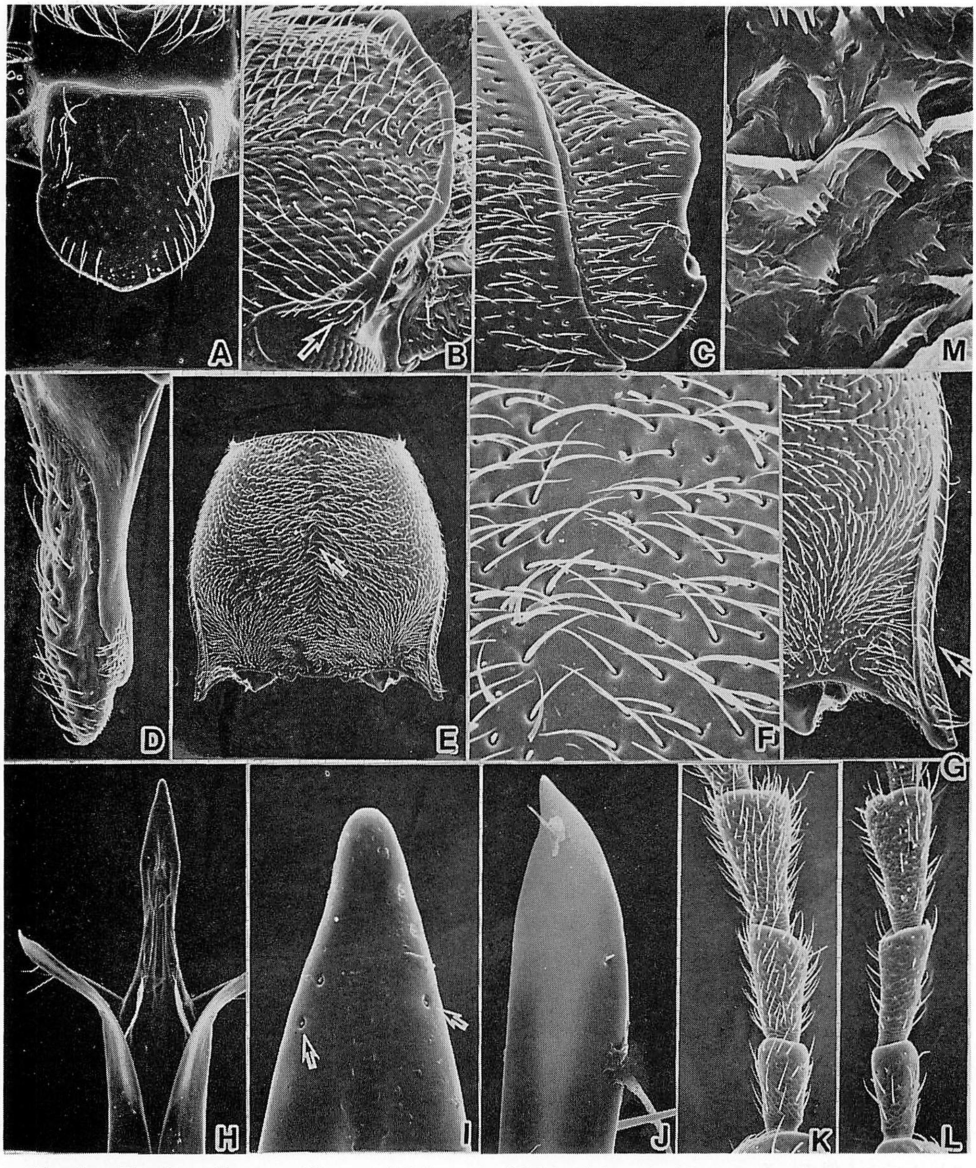

Fig. 2. *Fleutiauxellus tutus* (Lewis, 1894), male (Tobira-kôsen in Nagano Prefecture) (except for L and M wich are of a female).——A, Scutellum; B, clypeal margin; C, basal plate; D, prosternal process; E, pronotum; F, some punctures on the disc of pronotum; G, right hind angle of pronotum; H, aedeagus, ventral aspect; I, same, median lobe; J, same, lateral lobe; K–L, 2nd to 4th segments of antenna; M, sutures on the surface of bursa copulatrix.

は黄褐色，第 4 節からは黒褐色，肢は黄褐色である．

頭部の前頭部は扁平．前頭横隆線は顕著に縁取られ，前縁部は直線状で，基部の眼の前で大きく二

叉する (Fig. 2 B の↗印). 触角は細長く，末端は前胸背板の後角より末端 1 節ほど後方へ伸長する．第 2 節は短小で円筒形，第 3 節は弱い三角形で第 2 節の約 1.2 倍の長さである．第 4 節は第 3 節の約 1.2 倍の長さで，第 3 節から鋸歯状を呈する (Fig. 2 K).

前胸背板は後角を含めて幅と長さがほぼ等しく，背面からみた両側は中央やや後方部でもっとも幅広い．背面は膨隆し，正中部には幅広い平滑縦隆線を有する (Fig. 2 E–F). 点刻は小型で，小粒状の隆起物は発達が悪く，後半部ではむしろ弱いしわ状である (Fig. 2 F). 後角は短く，外縁は基部近くで顕著に内方へ湾曲する (Fig. 2 G の↖印). 前胸腹板突起は前肢基節腔を越えて弱く内方へ湾曲，末端に向かって直線状に伸長する (Fig. 2 D).

小盾板は矩形状，末端は湾曲して鈍くとがる (Fig. 2 A). 上翅の会合線部はやや扁平，条線は深く印され，間室部は弱く隆起し，小点刻を生じ，弱いしわ状を呈する．腰板は中央部でもっとも幅広く，それより外方へやや顕著に細まる (Fig. 2 C).

交尾器の腹面からの外形は図示したようで，中央突起の末端部は三角状に細まる (Fig. 2 H). また，両側部にある感覚孔は小型である (Fig. 2 I の↖印). 側突起は細長く，末端は細まって鋭くとがる (Fig. 2 J).

雌．雄に比べて体は一般に大型で，前胸背板は顕著に膨隆する．触角は短く，末端は前胸背板の後角までの距離とほぼ等長．第 3 節は細長く，第 2 節の約 1.2 倍の長さで円筒形を呈する (Fig. 2 L). 内部生殖器の bursa copulatrix の袋の内面のひだの模様は，図示したようである (Fig. 2 M). しかし，これは近似種間ではよく似ているので，主として類縁関係の考察に用いられる．

調査標本

4♂♂，10♀♀，長野県扉鉱泉，VIII–1970，大平採集．3♂♂，2♀♀，長野県木曾御岳山，27–VII–1987，有本採集．

その他

原記載で C. Lewis (1894) が述べているように，本種はミズギワコメツキ (*F. curatus*) に近縁の種であると思われる．当初は，ミズギワコメツキの肢の黄色化した変種ではないかと思っていたが，基準標本を検した結果，独立種であることが判明した．

本種は，一般外形がミズギワコメツキにきわめてよく似ているが，触角の第 3 節が短小であること，前胸背板がより顕著に膨隆し，正中部の平滑縦隆線がより幅広く明瞭に印され，周辺部の小粒状の隆起物はより小型でまばらに分布する．また，前胸背板の側縁は，後角やや前で顕著に内方へ湾曲する．雄交尾器の中央突起は細長く，末端部は三角状を呈し，側突起も細長く，末端は鋭くとがる．また，体表面は光沢があり，前胸背板の膨隆や光沢などはクロツヤミズギワコメツキ (*Oedostethus telluris*) にきわめてよく似ている．

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Elytra, Tokyo, **20** (1): 83–87, May 15, 1992

Notes on the Coleopteran Fauna of Malaysia. II*

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Abstract Taxonomic notes are given on two species of Paussidae, one species of Lampyridae, two species of Elateridae, one species of Salpingidae and one species of Pyrochroidae from Malaysia. Most of them are newly added to the fauna.

In 1987, I had an opportunity to visit Malaysia as a member of the research team of the National Science Museum (Nat. Hist.), Tokyo, in cooperation with the University of Malaya. During our three weeks stay in July, I was able to collect many specimens of the Coleoptera. Of these, some interesting species are dealt with in the present paper. Additionally, some records are also included herewith based on the specimens from the collections of my friends.

I am very grateful to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, and Professor YONG Hoi-Sen of the University of Malaya for their kind support in many ways, and also to Dr. Yoshihiko KUROSAWA, Mr. Yoshihiro HORI and Mr. Shinji NAGAI for their kind help in the material.

Family Paussidae

Cerapterus latipes SWEDERUS

(Fig. 1)

Cerapterus latipes SWEDERUS, 1788, Kongl. Vet. Akad. Handl., **9**: 203, pl. 6, fig. 1.

The specimen used in the present paper bears two pairs of distinct yellowish spots at the base and apex of the elytra. The spots do not agree with those given in the original description of the species, though this can be regarded as an infraspecific variation.

This species is first recorded from Malaysia, which limits the eastern end of the distribution of the species.

Specimen examined. 1 ex., Fraser's Hill, Malaysia, 24–IV–1990, Y. HORI leg.

Distribution. India, Sri Lanka, Myanmar, Malaysia.

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Pleuropterus taprobanensis GESTRO

(Fig. 2)

Pleuropterus taprobanensis GESTRO, 1901, Annli. Mus. civ. Stor. nat. Genova, **1901**: 821, fig. 2.

This species is new to the fauna of Malaysia.

Specimen examined. 1 ex., Fraser's Hill, Malaysia, 25–IV–1990, Y. HORI leg.

Distribution. India, Sri Lanka, Malaysia.

Family Lampyridae

Lychnuris consobrina (E. OLIVIER)

(Fig. 3)

Pyrocoelia consobrina E. OLIVIER, 1886, Notes Leyden Mus., **8**: 207.

This species resembles *L. fumigata* (GORHAM) from Malaysia and Thailand in general characters, but the blackish spaces of the elytral apices are more expanded in the latter.

This beautiful species was originally described from Sumatra and Malacca, and seems to be rather common, but no detailed records have been made in recent years.

Specimens examined. 2 exs., Tapah, Malaysia, 9 & 12–IV–1976, M. HATA leg.; 1 ex., Tapah, VII–1976; 1 ex., Cameron Highlands, Malaysia, 1–V–1990, S. NAGAI leg.; 1 ex., Kalangan, Kedah, Malaysia, 7–VII–1988, Y. KUROSAWA leg.; 1 ex., Ulu Gombak, Malaysia, 28–VII–1987, M. SATÔ leg.

Distribution. Malaysia, Sumatra.

Family Elateridae

Agraeus mannerheimi CANDÈZE

(Fig. 4)

Agraeus mannerheimi CANDÈZE, 1857, Mon. Elatérides, **1**: 166, pl. 3, fig. 4.

This species is characterised by its remarkable form and is distributed over Southeast Asia, though it has not been recorded from Malaysia up to the present.

Specimens examined. 3 exs., Ulu Gombak, Malaysia, 27–VII–1987, M. SATÔ leg.

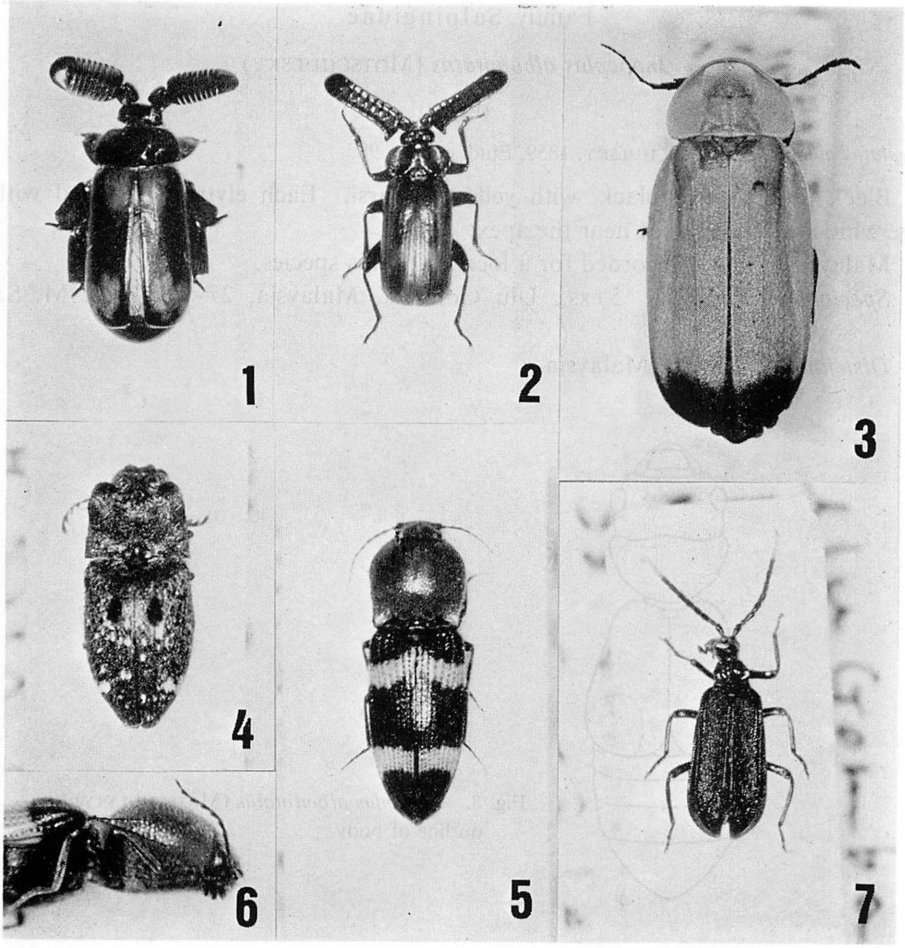
Distribution. Malaysia, Singapore, Sumatra, Java, Philippines, Borneo.

Paracardiophorus carduelis (CANDÈZE), comb. nov.

(Figs. 5–6)

Cardiophorus carduelis CANDÈZE, 1865, Elat. nouv., **1**: 39.

This beautiful elaterid having reddish prothorax and black elytra with two yellowish transverse bands is widely distributed in Southeast Asia, though it has not



Figs. 1–7. —— 1–5, 7. Habitus; 1, *Cerapterus latipes* SWEDERUS; 2, *Pleuropterus taprobanensis* GESTRO; 3, *Lychnuris consobrina* (E. OLIVIER); 4, *Agraeus mannerheimi* CANDÈZE; 5, *Paracardiophorus carduelis* (CANDÈZE); 7, *Ischaria indigacea* PASCOE. —— 6. Lateral aspect of pronotum of *Paracardiophorus carduelis* (CANDÈZE).

been recorded from Malaysia. Fortunately, I collected the species in the Batu Caves, in the suburbs of Kuala Lumpur, Malaysia. This may mean that the larvae of the carnivorous species attack small animals abundant in the cave. In this species, each lateral side of pronotum is provided with two carinae stretching from posterior angles. The upper one of them attains to the basal third and the lower one to the middle of pronotum. This character suggests that the species had better be placed in the genus *Paracardiophorus*.

Specimens examined. 6 exs., Batu Caves, Malaysia, 30–VII–1987, M. SATÔ leg.

Distribution. Vietnam, Cambodia, Malaysia, Singapore, Sumatra.

Family Salpingidae

Inopeplus albonotatus (MOTSCHULSKY)

(Fig. 8)

Euryplatus albonotatus MOTSCHULSKY, 1859, Étud. ent., **8**: 98.

Black to brownish black, with yellowish tarsi. Each elytron provided with a large whitish rounded spot near the apex.

Malaysia is newly recorded for a locality of this species.

Specimens examined. 5 exs., Ulu Gombak, Malaysia, 27–VII–1987, M. SATÔ leg.

Distribution. India, Malaysia.

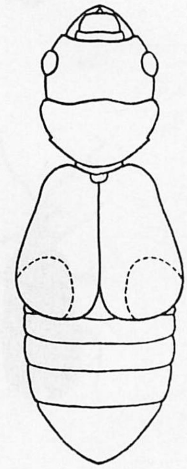


Fig. 8. *Inopeplus albonotatus* (MOTSCHULSKY), outline of body.

Family Pyrochroidae

Ischaria indigacea PASCOE

(Fig. 7)

Ischalia indigacea PASCOE, 1860, J. Ent., **1**: 54, pl. 3, fig. 6.

Head, pronotum and legs brownish black, elytra violet blue, antennae black with three white terminal segments. Length: 4.8 mm.

This species has not been recorded from anywhere for a long time since its description. However, a unique specimen taken at Ulu Gombak agrees well with PASCOE's original account.

Specimen examined. 1 ex., Ulu Gombak, Malaysia, 28–VII–1987, M. SATÔ leg.

Distribution. Malaysia, Borneo.

要約

佐藤正孝：マレーシアの甲虫相に関する覚え書き．II.——1987年にマレーシア（マレー半島）の甲虫相を調査する機会をえたが，その他の機会にえられた甲虫類とあわせて，とくに注目すべき数種についての覚え書きを以下のように報告した．

ヒゲブトオサムシ科 Paussidae

Cerapterus latipes Swederus

この種は上翅端に2紋を有するが，今回フレーザーヒルで得られた標本は，基部にも紋があることで原記載や再記載と異なる．しかし，ほかの特徴では区別できないので，変異のひとつであろうと判断して報告した．マレーシア新記録．

Pleuropterus taprobanensis Gestro

フレーザーヒルの灯火採集で得られたが，マレーシアからの記録がなかったのでここに報告した．

ホタル科 Lampyridae

Lychnuris consobrina (E. Olivier)

各地に普通のようであるが，近似の *L. fumigata* (Gorham) との関係が明らかでなかったためか，近年の記録がまったくないので報告しておいた．

コメツキムシ科 Elateridae

Agraeus mannerheimi Candèze

特異な形態のはっきりした種で，東南アジアに広く分布しているにもかかわらず，どうしたことかこれまでマレーシアからの記録がなかった．

Paracardiophorus carduelis (Candèze)

前胸背板が赤く，上翅は黒色で黄色の2本の帯をもつ美しい種である．バツー洞窟の中で，岩の割れ目から採集したときには驚いたが，よく考えてみると，食肉性の幼虫が，洞内に豊富に生息している小動物を捕食して生活しているようである．

チビキカワムシ科 Salpingidae

Inopeplus albonotatus (Motschulsky)

上翅後端に白紋を有する明瞭な種で，クアラルンプールの郊外ウルゴンバックで，倒木の樹皮下から採集した．マレーシアからは，この仲間として最初の記録である．

アカハネムシ科 Pyrochroidae

Ischaria indigacea Pascoe

1860 年にボルネオから記載されて以降，記録がないので，マレーシアを新分布地として報告した．

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Elytra, Tokyo, **20** (1): 88, May 15, 1992

Records of Some Brentid Species of the Genus *Cyphagogus* (Coleoptera) from the Philippines

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Cyphagogus eichhorni KIRSCH

Cyphagogus eichhorni KIRSCH, 1875, Mitt. Mus. Zool. Dresden, **1**: 45.

Specimens examined. 1 ex., Mt. Maquiling, Luzon, 19∼20–VI–1978, N. OHBAYASHI leg.; 22 exs., Mt. Talemo, Mindanao, 30–VI–1977, M. SATÔ leg.

Distribution. India, Sunda Is., Molukka Is., Philippines.

Cyphagogus gracilirostris DAMOISEAU

Cyphagogus gracilirostris DAMOISEAU, 1964, Bull. Annls. Soc. r. Ent. Belg., **36**: 473.

Specimen examined. 1 ex., Mt. Maquiling, Luzon, 20–VI–1978, N. OHBAYASHI leg.

Distribution. Philippines (Luzon, Mindanao, Palawan).

This species was originally described from Palawan and Mindanao, but it has not been recorded from Luzon up to the present.

Cyphagogus scutellatus DAMOISEAU

Cyphagogus scutellatus DAMOISEAU, 1964, Bull. Annls. Soc. r. Ent. Belg., **36**: 473.

Specimen examined. 1 ex., Baclayon–Mainit Hot Spring–Tudaya, Mindanao, 29–VII–1970, M. SATÔ leg.

Distribution. Philippines (Luzon, Alabat, Mindro, Mindanao).

This species is new to the fauna of Mindanao, which is the southern limit of distribution of the species.

I am grateful to the late Dr. R. DAMOISEAU and Dr. N. OHBAYASHI for their kind support in many ways.

Reference

DAMOISEAU, R., 1964. Contribution à la connaissance des Brenthidae (Coleoptera, Phytophagoidea). 18. Genres *Cladromus* GUÉRIN et *Cyphagogus* PARRY: Notes synonymiques et description d'espèces nouvelles. *Bull. Annls. Soc. r. Ent. Belg.*, **36**: 463–500.

Elytra, Tokyo, **20** (1): 89–94, May 15, 1992

Tenebrionidae of East Asia

(VIII) Three New Species of the Genera *Campsiomorpha* (Cnodalonini) and *Strongylium* (Strongyliini) from Taiwan

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Abstract Three new tenebrionid species (Coleoptera, Tenebrionidae) are described from Taiwan: *Campsiomorpha andoi* sp. nov. (Cnodalonini), *Strongylium ochii* sp. nov., and *Strongylium lutaoense* sp. nov. (Strongyliini).

In this paper, I am going to describe three new tenebrionid species taken in Taiwan, where I have been undertaking researches of the coleopteran fauna since 1971.

Of the new species to be described, the first one belongs to the genus *Campsiomorpha* (Cnodalonini). PIC (1930) described *Campsiomorpha spectabilis* var. *formosana* from the island. Recently, I noticed that two species of *Campsiomorpha* occur in Taiwan. Through the courtesy of Dr. Claude GIRARD, Muséum National d'Histoire Naturelle, Paris, I have had an opportunity of examining the type of PIC's species.

The second insect is a *Strongylium* (Strongyliini) brought forth by Mr. Teruo OCHI of Kawanishi City. Though I felt that the species resembled a member of the Papuan Region at the first impression, I was unable to find any relatives in the Papuan and also the Oriental Regions.

The third species is also a *Strongylium* and was captured on Lutao Island located 30 kilometers off the east coast of Taiwan. This beetle is unique in that each elytral puncture is surrounded by four granules at the upper edge, two at the sides and the other two in front and back.

Before going into descriptions, I wish to express my sincere thanks to the above two persons, and also to Mr. Kaoru SAKAI who took photographs inserted in this paper.

The holotypes will be preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Descriptions

Campsiomorpha andoi sp. nov.

(Figs. 1, 5–6)

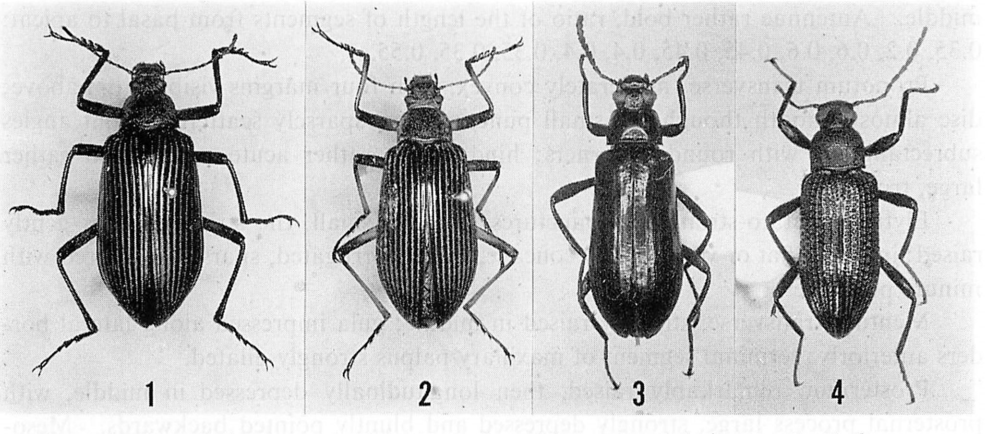
This new species resembles *Campsiomorpha formosana* PIC in general appearance

(Fig. 2), but can be discriminated from the latter by the characteristics mentioned in the following table.

Table for comparison of *Campsiomorpha* spp. from Taiwan

	C. formosana PIC	*C. andoi* sp. nov.
Body	more slender, less strongly thickened in middle, with surface more distinctly covered with hairs	stouter, more strongly thickened in middle, less distinctly covered with hairs
Clypeus	apical margin more distinctly emarginate with each side more strongly produced forwards	apical margin less distinctly emarginate with each side less strongly produced forwards
Genae	less distinctly raised	more distinctly raised
Eyes	more strongly convex laterad and more deeply inlaid inwards with ocular sulcus becoming shallower before eye	less strongly convex laterad and less deeply inlaid inwards with ocular sulcus not becoming shallower before eye
Pronotum	less distinctly narrowed towards apex, with base less distinctly sinuous on each side, hind angles less angulate	more distinctly narrowed towards apex, with base more distinctly sinuous on each side, hind angles distinctly angulate
Scutellum	smaller and narrower	larger and wider
Elytra	more clearly punctato-striate, the striae feebly bearing greenish tinge, less distinctly micro-shagreened	less clearly punctato-striate, the striae feebly bearing violet tinge, distinctly micro-shagreened
Scutellar striole	longer as compared with own elytral length	shorter as compared with own elytral length
Intervals	more convex above, distinct in apical portions	less convex
Humeri	less remarkably gibbous, with base of 9th interval almost invisible from above	more remarkably gibbous, with base of 9th interval visible from above
Apices	less strongly produced	more strongly produced
Mentum	narrower	wider

	C. formosana Pic	*C. andoi* sp. nov.
Prosternal process	longitudinally impressed in middle	triangularly depressed in middle
Mesosternum	semicircularly ridged at base, each frontal side pointed	triangularly ridged at base, with each frontal side not pointed
Metasternum	more distinctly produced in baso-medial portion	less distinctly but more widely produced in baso-medial portion
Anal segment	narrower at base	wider at base
Legs	more slender, with tarsi weakly dilated towards each apex, tibiae (especially metatibiae) light brown	bold, with tarsi more strongly dilated towards each apex, tibiae always dark in colour
Male genitalia	as in Figs. 7–8	as in Figs. 5–6
Body length	22–27 mm	26–32 mm
Locality	Paling (Taoyuan), Nanshanchi, Wushe, Lushan, Hehuanshan, Tehuashe (Nantou), Tenghsi, Liukuei (Kaohsiung), etc.	Yangmingshan, Wulai, Tatunshan (Taipei)



Figs. 1–4. Dorsal views. —— 1, *Campsiomorpha andoi* sp. nov., ♂, holotype; 2, *C. formosana* Pic, ♂; 3, *Strongylium ochii* sp. nov., ♀, holotype; 4, *Strongylium lutaoense* sp. nov., ♂, holotype.

Type series. Holotype. ♂, Yangmingshan, Taipei Hsien, Taiwan, 28–V–1973, K. Masumoto leg. Paratypes. 2 exs., same data as for the holotype; 1 ex., 27–VI–1981, same locality and collector as for the holotype; 1 ex., 29–V–1968, 1 ex., 30–V–1968,

Yangmingshan, Y. HAYASHI leg.; 3 exs., Tatunshan, Taipei Hsien, 10–VI–1977, H. SAKAINO leg.; 1 ex., 5–V–1973, 1 ex., 28–VI–1981, Wulai, Taipei Hsien, K. MASUMOTO leg.; 1 ex., Wulai, 2–VIII–1969, no collector's name.

Notes. The type of *Campsiomorpha formosana* PIC is a female specimen and labelled as follows: Formosa Y. Miwa (printed)/type (manuscript)/TYPE (printed)/ Museum Paris Coll. M. Pic (printed)/*spectabilis* v. *formosanus* Pic (manuscript). The specimen clearly resembles those from central Taiwan, *e.g.*, Musha (Wushe), where Y. MIWA might collect the material.

The new species occurs in the northernmost part of Taiwan in the suburbs of Taipei City.

Strongylium ochii sp. nov.

(Fig. 3)

Rather elongate, gently convex longitudinally, feebly widened posteriorly. Ventral surface brownish black and feebly bearing greenish blue tinge, moderately shining; dorsal surface dark greenish blue, rather strongly shining.

Head subdecagonal, raised in middle; clypeus transversely hexagonal, sparsely and finely punctate, truncate and bent downwards in front; genae triangularly produced and raised, with lateral margins subparallel in basal half; frons smooth and declined to fronto-clypeal suture, which is clearly impressed and arcuate; eyes fairly large, roundly convex laterad, with interocular space same in width as that of each eye; occiput sparsely scattered with small punctures, longitudinally impressed in middle. Antennae rather bold, ratio of the length of segments from basal to apical: 0.35, 0.2, 0.6, 0.6, 0.45, 0.45, 0.4, 0.4, 0.35, 0.35, 0.55.

Pronotum transverse, moderately convex, with four margins visible from above; disc almost smooth though the small punctures are sparsely scattered; front angles subrectangular with rounded corners; hind angles rather acute. Scutellum rather large, triangular.

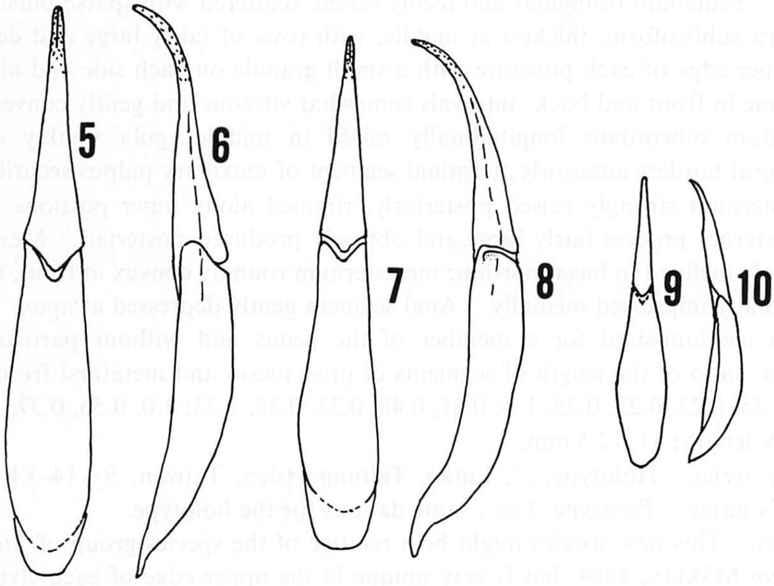
Elytra punctato-striate, the punctures in striae small, the strial portions gently raised; intervals flat or very slightly concave, feebly corrugated, sparsely scattered with minute punctures.

Mentum transverse, strongly raised in middle; gula impressed along lateral borders anteriorly; terminal segment of maxillary palpus strongly dilated.

Prosternum remarkably raised, then longitudinally depressed in middle, with prosternal process large, strongly depressed and bluntly pointed backwards. Mesosternum widely, triangularly depressed in anterior portion. Anal sternite longest of 5 visible abdominal sternites.

Legs rather bold; ratio of the length of segments of pro-, meso- and metatarsi from basal to apical: 0.3, 0.2, 0.24, 0.23, 1.2; 1.6, 0.77, 0.68, 0.55, 1.5; 1.55, 0.75, 0.57, 1.48.

Body length: 12 mm.



Figs. 5–10. Male genitalia. —— 5–6. *Campsiomorpha andoi* sp. nov., 5, dorsal view; 6, lateral view. —— 7–8. *C. formosana* Pic; 7, dorsal view; 8, lateral view. —— 9–10. *Strongylium lutaoense* sp. nov.; 9, dorsal view; 10, lateral view.

Type series. Holotype. ♀, Liukuei, Taiwan, 4–V–1978, W. Cheng leg.

Notes. This new species is very unique in that the four pronotal margins are visible from above. I cannot find any related species ever named from the Oriental and Papuan Regions.

Strongylium lutaoense sp. nov.

(Figs. 4, 9–10)

Oblong, rather strongly convex longitudinally, feebly widened in posterior portion. Dark reddish brown, with dorsal surface moderately shining and ventral surface gently so.

Head subdecagonal, convex above, rather closely punctate; clypeus semicircular, truncate and bent downwards in front; genae obtusely angulate and distinctly raised; eyes large, roundly convex laterad, broadly inlaid in head in dorsal view, with diatone about a half of the width of each eye; frons fairly steeply declined to finely impressed fronto-clypeal border; occiput moderately convex, with impunctate area in middle. Antennae subfiliform, ratio of the length of segments from basal to apical: 0.47, 0.2, 0.78, 0.75, 0.76, 0.65, 0.63, 0.62, 0.62, 0.63, 0.77.

Pronotum subparallel-sided in basal 2/3, rounded in apical 1/3; apical and lateral margins finely bordered; base noticeably rimmed; disc rather strongly convex, fairly closely and somewhat coarsely punctate; front angles rounded; hind angles subrectangular. Scutellum triangular and feebly raised, scattered with sparse punctures.

Elytra subfusiform, thickest at middle, with rows of fairly large and deep punctures, upper edge of each puncture with a small granule on each side and also with a smaller one in front and back; intervals somewhat vitreous and gently convex.

Mentum subcordate, longitudinally raised in middle; gula weakly impressed along lateral borders anteriorly; terminal segment of maxillary palpus securiform.

Prosternum strongly raised posteriorly, rimmed along inner portions of coxae, with prosternal process fairly large and obtusely produced posteriad. Mesosternum triangularly inclined in basal portion; metasternum roundly convex in front, distinctly, longitudinally impressed medially. Anal segment gently depressed at apex.

Legs medium-sized for a member of the genus and without particular characteristics; ratio of the length of segments of pro-, meso- and metatarsi from basal to apical: 0.35, 0.23, 0.22, 0.25, 1.2; 0.81, 0.48, 0.37, 0.35, 1.23; 1.0, 0.56, 0.37, 1.22.

Body length: 11–12.5 mm.

Type series. Holotype. ♂, Lutao, Taitung Hsien, Taiwan, 9～14–VI–1989, no collector's name. Paratype. 1 ex., same data as for the holotype.

Notes. This new species might be a relative of the species-group of *Strongylium cultellatum* MÄKLIN, 1864, but is very unique in the upper edge of each elytral puncture with a granule not only on each side but also in front and back, and elytral intervals only gently convex (in case of other species of the group, upper edge of each elytral puncture bears a granule only on each side and the odd elytral intervals are ridged).

要約

益本仁雄: 東南アジアのゴミムシダマシ科. (VIII) 台湾産 *Campsiomorpha* 属 (Cnodalonini 族) の1新種および *Strongylium* 属 (Strongyliini 族) の2新種について. —— 台湾には *Campsiomorpha formosana* PIC が分布しているが, 最近, 同島産の標本のなかに特徴の異なる個体群があることに気づき, パリの国立自然史博物館から既知種の基準標本を借り出し比較検討したところ, 台北県に分布しているものは別種であることが判明した. また, 高雄県六亀郷で採集された *Strongylium* は, 前胸背板が台形で隆起が弱く, 4外縁が背面から見えるという特異な形状をしている. さらに, 緑島産の *Strongylium* は, *S. culcutellum* MÄKLIN に近縁であるが, 上翅点刻周囲の左右と上下に小顆粒をそなえ, 各間室は同様に弱く膨隆する. 以上の3種を新種記載した.

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Elytra, Tokyo, **20** (1): 95–99, May 15, 1992

Taxonomic Notes on *Sachalinobia rugipennis* (Newman) and *S. koltzei* (Heyden) (Coleoptera, Cerambycidae, Lepturinae)

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Abstract *Sachalinobia rugipennis* (Newman, 1844) and *S. koltzei* (Heyden, 1887) are specifically distinct. Morphological differences between the two species are described, and synonymies of the two species are given.

The genus *Sachalinobia* Jacobson, 1899, comprises two allopatric forms: *S. rugipennis* (Newman, 1844) in eastern Canada and the northeastern United States, and *S. koltzei* (Heyden, 1887) in eastern Siberia, Sakhalin, northeastern China, Korea, Hokkaido and central Honshu of Japan. Gressitt (1953) assigned *koltzei* to a subspecies of *rugipennis* by comparing only females of *rugipennis* and a male of *koltzei* in the collection of the California Academy of Sciences. Chemsak and Linsley (1963), Linsley and Chemsak (1972), Hayashi (1980) and Kusama and Takakuwa (1984) also treated *koltzei* as a subspecies of *rugipennis*. However, there are no descriptions of useful characters to distinguish the two forms in these treatises. Lee (1987) treated *koltzei* as a synonym of *rugipennis*.

After comparing series of specimens of *rugipennis* and *koltzei*, I have come to the conclusion that these two forms should be regarded as two distinct species because of differences in the proportional lengths of the antennal segments and in proportions of the width and length of the prothorax and elytra.

Sachalinobia koltzei (Heyden)

(Figs. 1–2)

Brachyta koltzei Heyden, 1887, Dt. ent. Z., **31**: 304.

Sachalinobia retata Jacobson, 1899, Ezhegodnik zool. Mus. imp. Akad. Nauk, **4**: 40–41 (=Annu. Mus. zool. Acad. imp. Sci. St. Pétersb., **4**: 40–41).

Sachalinobia koltzei: Jacobson, 1902, Dt. ent. Z., **1902**: 363; Aurivillius, 1912, Coleopt. Cat., (39): 193; Boppe, 1921, Gen. ins., (178): 64; Asahina, 1931, Kontyû, Tokyo, **5**: 54; Matsushita, 1933, J. Fac. Agric. Hokkaido imp. Univ., **34**: 174; Plavilstshikov, 1936, Fn. SSSR, Coléopt., (21): 204–206, 518; Tamanuki, 1939, Fn. nipp. Cerambyc., **1**: 81–83, fig. 34; Mitono, 1940, Cat. Coleopt. japon., (94): 12; Gressitt, 1947, Proc. ent. Soc. Wash., **49**: 191; Gressitt, 1951, Longicornia, **2**: 55–56; Cho, 1961, Taxon. Stud. Longicorn Beetles Korea, p. 19; Ohbayashi, 1963, Iconogr. Ins. Japan. Col. nat. ed., **2**: 271, pl. 136, fig. 6; Kojima & Hayashi, 1969, Insect's Life in Japan, **1**: 11–12, pl. 4, fig. 4; Kusama, 1972, List Jpn. Cerambycidae w. Ecol. & Distr., p. 11; Nakane, 1974, Nat. & Ins., Tokyo, **9** (10): 5; Goh, 1978, Elytra, Tokyo, **6**: 53–55, figs.; Lee, 1979, Kor. J. Ent., **9** (2): 34; CHEREPANOV, 1979, Ceramb. North Asia, **1**: 135–138, fig. 63; PU, 1980, Econ. Ins. Fn. China, **19**: 17, pl. 2, fig. 14; LOBANOV, DANILEVSKY & MURZIN, 1981, Ent. Obozr., **60**: 796; NAKAMURA, 1981, Morphol. taxon. Stud. Cerambyc. Pupae Japan, pp. 22–23, pl. 68, figs. 167 A–C; LEE, 1982, Ins. Koreana, **1**: 8; HUA, 1982, Check List Longicorn Beetles China, p. 18; HAYASHI, 1984, Coleopt. Japan Col., Osaka, **4**: 12, pl. 3, fig. 3; ŠVÁCHA & DANILEVSKY, 1989, Acta Univ. Carol., (Biol.), **32** [for 1988]: 46–49.

Sachalinobia rugipennis koltzei: GRESSITT, 1953, Pan-Pacif. Ent., **29**: 207; HAYASHI, 1955, Col. Illustr. Ins. Japan, (Coleopt.), p. 23, pl. 10, fig. 18; KEIHIN-KONCHU-DOKOKAI (ed.), 1959, New Ins. Coll. Tokyo, **2**: 368; HAYASHI, 1962, Col. Illustr. Ins. Japan, (Coleopt.), p. 135, pl. 42, fig. 959; CHEMSAK & LINSLEY, 1963, Pan-Pacif. Ent., **39**: 86; HAYASHI, 1980, Check-list Coleopt. Japan, (19): 3–4; KUSAMA & TAKAKUWA, 1984, Longicorn-beetles Japan Col., pp. 158–159, pl. 7, figs. 36, 36 a; SAITO, 1989, Elytra, Tokyo, **17**: 72, fig. 7.

Sachalinobia rugipennis: LEE, 1987, Longicorn Beetles Korean Pen., p. 23.

Head, prothorax and elytra usually black with dark bronze tint, rarely dark coppery brown; antennae with apex of 11th segment reaching basal three-fourths of elytra in males and reaching the middle of elytra in females; ratio of lengths of 3rd and 5th segments less than that of *rugipennis* (3rd/5th: ♂=1: 1.06; ♀=1: 1.4); in males, 6th segment nearly equal in length to 1st, 7th segment distinctly longer than 1st, in females, 7th segment nearly equal in length to 1st; width of prothorax across lateral tubercles equal to length, median longitudinal glabrous line on disk extremely short or indistinct; elytra about twice as long as humeral width (♂: 1.97–2.05 times; ♀: 1.90–2.06 times), each elytron with a median transverse band which is slightly slanted or nearly transverse; legs longer, hind tarsi with 1st and 2nd segments narrower and weakly dilated towards apical margin. Length: ♂, 13.5–15.0 mm; ♀, 16.0–19.0 mm (measured from tips of mandibles to elytral apices).

Type locality. Nikolajevk, Amur.

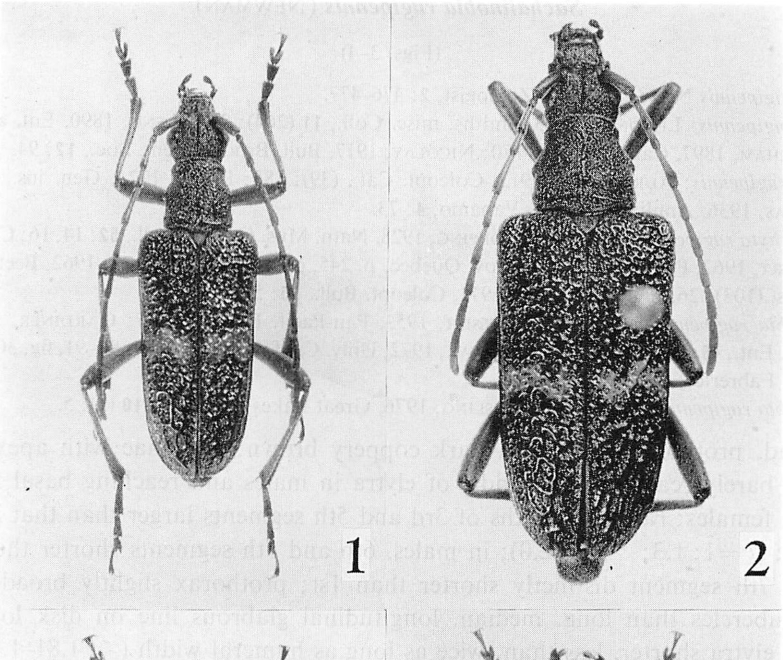
Distribution. Eastern Siberia (Amur-Ussuri Region), Sakhalin, northeastern China, Korea, Japan (Hokkaido and central Honshu).

Specimens examined. 40 exs. (29 ♂♂, 11 ♀♀).

Sakhalin (Russia): 1 ♂, 1 ♀, Shpamberg Mt., 3–VII–1976, NESTEROV leg.

Hokkaido (Japan): Tokachimitsumata, Tokachi-shichô: 1 ♀, 13–VII–1981, R. OIDAIRA leg.; 1 ♂, 1 ♀, 18 & 28–VII–1983, K. HOSOKAWA leg.

Honshu (Japan): 1 ♀, nr. Miike, Hinoemata-mura, Fukushima Pref., 28–VI–1987, N. KOBAYASHI leg.; 1 ♂, 1 ♀, Mt. Sannoboushiyama, 1,800 m, NE of Yumoto, Tochigi Pref., 19–VII–1981, N. MORISHIMA leg.; Sugenuma, 1,700 m, Katashina-mura, Gunma Pref.: 1 ♂, 8–VII–1976, Y. ODA leg.; 1 ♂, 1 ♀, 22–VII–1976, S. SAITO leg.; 1 ♂, 7–VII–1978, N. OGURA leg.; 1 ♀, 27～29–VI–1980, T. SHIMOMURA leg.; 8 ♂♂, 3 ♀♀, 11–VII–1984, T. MIYAMOTO leg.; 1 ♂, Hirogawara, 1,600 m, Ashiyasu-mura, Yamanashi Pref., 5–VI–1987, T. SHIMOMURA leg.; 1 ♂, Mt. Fujisan, 1,700 m, NW slope, Yamanashi Pref., 8–VII–1989, T. SHIMOMURA leg.; Azumi-mura, Minami-azumi-gun, Nagano Pref.: 1 ♂, 30–VI–1976, Y. ODA leg.; 1 ♀, 22–VII–1980, Y. ISHIKAWA leg.; 4 ♂♂, 1–VII–1984, Y. ISHIKAWA leg.; 6 ♂♂, 8–VI–1987, Y. ISHIKAWA leg.; 2 ♂♂, Honzawa Spa, Mts. Yatsugatake, Nagano Pref., 13–VII–1981, Y. ISHIKAWA leg. (in coll. T. SHIMOMURA & N. KOBAYASHI).



Figs. 1–4. —— 1–2. *Sachalinobia koltzei*; 1, male; 2, female. —— 3–4. *Sachalinobia rugipennis*; 3, male; 4, female.

Sachalinobia rugipennis (NEWMAN)

(Figs. 3–4)

Toxotus rugipennis NEWMAN, 1844, Zoologist, **2**: 476–477.

Pachyta rugipennis: LECONTE, 1873, Smiths. misc. Coll., **11** (264): 207; LENG, 1890, Ent. am., **6**: 97; WICKHAM, 1897, Can. Ent., **29**: 170; NICOLAY, 1917, Bull. Brooklyn ent. Soc., **12**: 94.

Evodinus rugipennis: AURIVILLIUS, 1912, Coleopt. Cat., (39): 188; BOPPE, 1921, Gen. ins., (178): 72; SAALAS, 1936, Annli. Zool. Soc. Vanamo, **4**: 73.

Pseudopachyta rugipennis: SWAINE & HOPPING, 1928, Natn. Mus. Canada Bull., **52**: 14, 16; CHAGNON & ROBERT, 1962, Princip. Coleopt. Prov. Quebec, p. 245, pl. 15, fig.7; ARNETT, 1962, Beetles United States, (103): 26, p. 876; WILSON, 1971, Coleopt. Bull., **25**: 59.

Sachalinobia rugipennis rugipennis: GRESSITT, 1953, Pan-Pacif. Ent., **29**: 207; GARDINER, 1970, Pan-Pacif. Ent., **46**: 287; LINSLEY & CHEMSAK, 1972, Univ. Calif. Publ. Ent., **69**: 90–91, fig. 30; DROUIN, 1989, Fabreries, **14** (2): 28–31.

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Head, prothorax and elytra dark coppery brown; antennae with apex of 11th segment barely reaching the middle of elytra in males and reaching basal fourth of elytra in females; ratio of lengths of 3rd and 5th segments larger than that in *koltzei* (3rd/5th: ♂=1: 1.3; ♀=1: 2.0); in males, 6th and 7th segments shorter than 1st, in females, 7th segment distinctly shorter than 1st; prothorax slightly broader across lateral tubercles than long, median, longitudinal glabrous line on disk longer and distinct; elytra shorter, less than twice as long as humeral width (♂: 1.81–1.92 times; ♀: 1.78–1.90 times), each elytron with a median transverse band which is distinctly slanted upwards from near suture to near lateral margin; legs shorter, hind tarsi with 1st and 2nd segments broader and distinctly dilated towards apical margin. Length: ♂, 12.5–16.0 mm; ♀, 14.0–17.0 mm (measured from tips of mandibles to elytral apices).

Type locality. Canada.

Distribution. Eastern Canada (Provinces of New Brunswick, Quebec, Ontario) and northeastern United States (Maine, New Hampshire, Nova Scotia, N. Michigan).

Specimens examined. 35 exs. (28 ♂♂, 7 ♀♀) from the following three localities in Lotbinière, the Province of Quebec, Canada.

Dosquet: 4 ♂♂, 29–V–1987; 4 ♂♂, 27–V–1988; 2 ♂♂, 2 ♀♀, 29–V–1988; 2 ♂♂, 1 ♀, 31–V–1988; 1 ♀, 11–VI–1988 (coll. by P. BÉLANGER).

Ste-Agathe: 2 ♂♂, 23–V–1988 (coll. by R. JUAN); 1 ♂, 25–V–1988; 4 ♂♂, 1 ♀, 29–V–1989 (coll. by P. BÉLANGER).

St-Gilles: 1 ♂, 1 ♀, 22–V–1988; 1 ♂, 27–V–1988; 3 ♂♂, 29–V–1988; 2 ♂♂, 23–V–1989 (coll. by G. DROUIN); 1 ♀, 11–VI–1988; 2 ♂♂, 23–V–1989 (coll. by P. BÉLANGER). The specimens are deposited in the collection of T. SHIMOMURA.

Notes. *Sachalinobia* appears to be related to *Evodinus*, *Brachyta*, *Pachyta*, *Rhagium* and *Gaurotes*. ŠVÁCHA and DANILEVSKY (1989) reported that *Sachalinobia* is similar to the monotypic genus, *Xenoleptura* DANILEVSKY, LOBANOV et MURZIN, 1981 in larval characters, and proposed that the two genera, *Sachalinobia* and *Xenoleptura*, have a tribal rank.

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要 約

下村 徹: アラメハナカミキリとホクベイアラメハナカミキリの分類学的知見. —— シベリア東部, 樺太, 朝鮮, 中国北東部, 北海道および本州中部に分布するアラメハナカミキリ *Sachalinobia koltzei* (HEYDEN, 1887) は, GRESSITT (1953) により, カナダ東部とアメリカ北東部に分布するホクベイアラメハナカミキリ *S. rugipennis* (NEWMAN, 1844) の亜種として取り扱われた. その後, 両者は亜種あるいは種として扱われてきたが, 両者を識別するための有効な特徴の記述がなかった. 多数の両者の標本を比較した結果, 触角の長さ, 触角節の比, 前胸・上翅のそれぞれの幅と長さの比, などの形態的相違と分布状態 (異所的分布による生殖隔離) により, 両者を独立種とみなした.

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Elytra, Tokyo, **20** (1): 100, May 15, 1992

A New Record of *Pseudalosterna crinitosulcata* (Coleoptera, Cerambycidae, Lepturinae) from Borneo

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Pseudalosterna crinitosulcata OHBAYASHI et SHIMOMURA, 1986, was described on a male specimen from the Cameron Highlands, the Malay Peninsula. After that, I have examined a male specimen of this species from Borneo which was collected by Mr. N. KOBAYASHI. The collecting data of the specimen examined are as follows:

1 ♂, Crocker Range, 1,200 m, nr. Keningau, Sabah, Borneo, Malaysia, 27–III–1987, N. KOBAYASHI leg. (preserved in the collection of T. SHIMOMURA).

Distribution. Malay Peninsula, Borneo.

Notes. In comparison with the type of *P. crinitosulcata*, this Bornean specimen has a dark brown stripe along lateral margin from the subquadrate, oblique spot to about apical fourth of each elytron. I consider that the character of elytral vittae may be an individual variation within the species like the variation in *P. pullata* from Taiwan (elytron of *P. pullata* is usually wholly black, but sometimes provided with a yellowish brown stripe along the lateral margin). Almost all the other characters of the Bornean specimen agree with those of *P. crinitosulcata*. It is, however, neccessary to examine some more specimens for defining variation of this species.

I wish to express my gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for reading the manuscript of this paper, and to Mr. Nobuyuki KOBAYASHI (Kawasaki) for his kindness in giving me the specimen.

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OHBAYASHI, N., & T. SHIMOMURA, 1986. Two new lepturine beetles of the genus *Pseudalosterna* from the Malay Peninsula and Taiwan. *Annls. Soc. ent. Fr.*, (n. s.), **22**: 45–48.

Elytra, *Tokyo*, **20** (1): 101–102, May 15, 1992

クビアカハナカミキリの幼生期の生態に関する一知見

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Ecological Notes on the Immature Stage of *Gaurotes* (*Carilia*) *atripennis* MATSUSHITA (Coleoptera, Cerambycidae)

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Abstract　A pupa and a larva of *Gaurotes* (*Carilia*) *atripennis* MATSUSHITA (Cerambycidae, Lepturinae) were accidentally found in a breeding case, in which dead branches of *Pinus parviflora* SIEB. et ZUCC. collected in Minami-Aizu, Fukushima Prefecture, northern Honshu, were placed. The former was found in the lump of chips, while the latter near the lump.

These happenings suggest that the larvae of this species may pupate in the soil, as was previously reported on other species of the same genus.

クビアカハナカミキリ属 (*Gaurotes*) の幼生期の生態に関しては，これまで CHEREPANOV (1979) と ŠVÁCHA & DANILEVSKY (1988) がアジア，ヨーロッパに分布する数種について報告している．それらによると，幼虫は枯れ木内に穿孔し，孵化から2年目の秋に材から出て地中へ潜行，終齢幼虫は地中で越冬したのち，翌春そのまま地中で蛹化，羽化脱出するとされている．また，日本国内でも，河路 (1984) がカラカネハナカミキリ *Gaurotes* (*Paragaurotes*) *doris* BATES について，蛹の形態を記載するとともに，幼生期の生態について触れている．河路はカツラ，オニグルミ等の枯れ木中にいた本種の幼虫を採集，室内で飼育した際，羽化脱出する前年の秋には幼虫が地中で生活し，春にそのまま蛹化，その後羽化したことを報告している．

筆者の一人，関は，1990 年 6 月 24 日に，福島県南会津郡館岩村の鱒沢付近の土場に放置してあったマツ属のヒメコマツ *Pinus parviflora* SIEB. et ZUCC. の枯れ木 (直径約 15 cm，長さ約 35 cm)

2本を持ち帰り，飼育ケースに入れて保管した．この材にはカラフトヒゲナガカミキリ *Monochamus saltuarius* (Gebler) (翌春に羽化脱出) が穿孔しており，その幼虫が粗い繊維質の木屑を多く排出したので，飼育ケースの隅に厚さ3cm程度かき集めておいた．1991年4月頃に飼育ケースを掃除していたところ，その木屑内に造られた蛹室中から腹面を上にした蛹を，また付近で幼虫をそれぞれ1個体発見した．蛹室について詳細な観察はできなかったが，直径2cm程度のものであった．その蛹を松本裕一氏がプラスチックケース中に保管しておいたところ，4月中に正常に羽化し，これがクビアカハナカミキリ *Gaurotes* (*Carilia*) *atripennis* Matsushita であることを確認した．この結果から，飼育した個体は材を採集した時点では材中にいたが，翌4月までのいずれかの時期に外部へ出てカラフトヒゲナガカミキリが排出した木屑中に潜入し，そこで蛹化したものと考えられる．したがって本種も，これまでに報告されているほかの *Gaurotes* 属のものと，とくに蛹化に際して同様の生態である可能性が示唆された．

日本からは *Gaurotes* 属は3種が知られるが，その幼生期の生態に関しては，これで2種について若干の知見が得られたことになる．そのいずれもが自然状態ではなく，飼育下におけるものであるが，その飼育過程でみられた生態は，いずれも Cherepanov あるいは Švácha & Danilevsky の報告と明らかに関連して考えられるものである．寄主植物や亜属の違いはともかく，日本国内においても *Gaurotes* 属の幼生期の生態はおおむね同様であると考えられる．ただ，残念ながら，日本に分布するもう1種の *Gaurotes*，オトメクビアカハナカミキリ *Gaurotes* (*Carilia*) *otome* Ohbayashi の幼生期の生態に関する報告は見当たらない．

なお，寄主植物について考察を加えれば，カラカネハナカミキリでは河路の報告のほかにも小島・中村 (1986)，草間・高桑 (1984) などに広葉樹，針葉樹各種が報告されており，クビアカハナカミキリでは今回初めてヒメコマツが報告されることとなった．オトメクビアカハナカミキリについては寄主植物に関する報告は見当たらないが，ほかの *Carilia* 亜属の種が針葉樹を好むことから，この種も針葉樹を好むものと推測される．

文末ながら，本報告に協力して下さった高桑正敏，松本裕一の両氏に深謝する．

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Female Reproductive Organs of Cerambycid Beetles from Japan and the Neighbouring Areas

III. Obriini through Rosaliini

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Abstract Nineteen species of cerambycine longicorn beetles are examined for their female reproductive organs. They are distributed to 16 genera (one of which is divided into 2 subgenera) of 6 tribes (Obriini through Rosaliini). The Obriini and Stenopterini are of particular interest and require a thorough revision.

Six tribes of the subfamily Cerambycinae are taken up in the third part of this series of papers. They are the Obriini (6 spp. of 4 genn.), Stenopterini (4 spp. of 3 genn.), Molorchini (5 spp. of 5 genn.), Thraniini (1 sp. of 1 gen.), Pyrestini (1 sp. of 1 gen.) and Rosaliini (2 spp. of 2 genn.). Their female reproductive organs are described and illustrated.

As in the foregoing parts, higher classification mainly follows that given by KUSAMA and TAKAKUWA (1984), but NIISATO's opinion (1992) is adopted as regards the Stenopterini.

Results

Tribe Obriini

Stenhomalus cleroides BATES, 1873

(Figs. 71–73)

Collecting data of the material used. Mukohgaoka, Kawasaki-shi, Kanagawa Pref., 16–IV–1980, A. TAKASU leg.

Paraproct extremely short and without baculum; valvifer indistinct; coxite very short, not constricted and devoid of baculi; coxite lobes extremely short, practically absent, with rather long tactile hairs; stylus long and very narrow, hardly broadened towards the apex, sclerotized except for the apex; dorsal baculi absent; proctiger absent so as to make the anus directly open at the dorsal base of paraproct; vagina very short; vaginal plates narrow; bursa copulatrix constricted at middle and broadened in apical half; spermatheca rather narrow, strongly bent at middle, curved at base to which the gland is connected; spermathecal duct narrow and sinuate, and entering into the base of bursa copulatrix.

Longipalpus dilatipennis (Gressitt, 1935)

(Figs. 74–76)

Collecting data of the material used. Miyako-jima Is., Okinawa Pref., V–1983 (emerged).

Paraproct, valvifer and coxite fused together into a piece, not distinguishable from one another and devoid of baculi, and hardly constricted at the posterior part; coxite lobes very short, hardly sclerotized, with rather long tactile hairs; stylus very narrow; dorsal baculum absent; proctiger absent so as to make the anus directly open at the dorsal apex of paraproct; vagina very short; vaginal plates lanceolate; bursa copulatrix short and broad; spermatheca narrow, bent at apical third and basal third, with very short gland at the outer surface of basal third; spermathecal duct rather thick, short, sinuate, and entering into the basal third of bursa copulatrix.

Pseudiphra elegans (Villiers et Chûjô, 1971)

(Figs. 77–79)

Collecting data of the material used. Mt. Omotodake, Ishigaki Is., Okinawa Pref., 12–V–1973, T. Nakane leg.

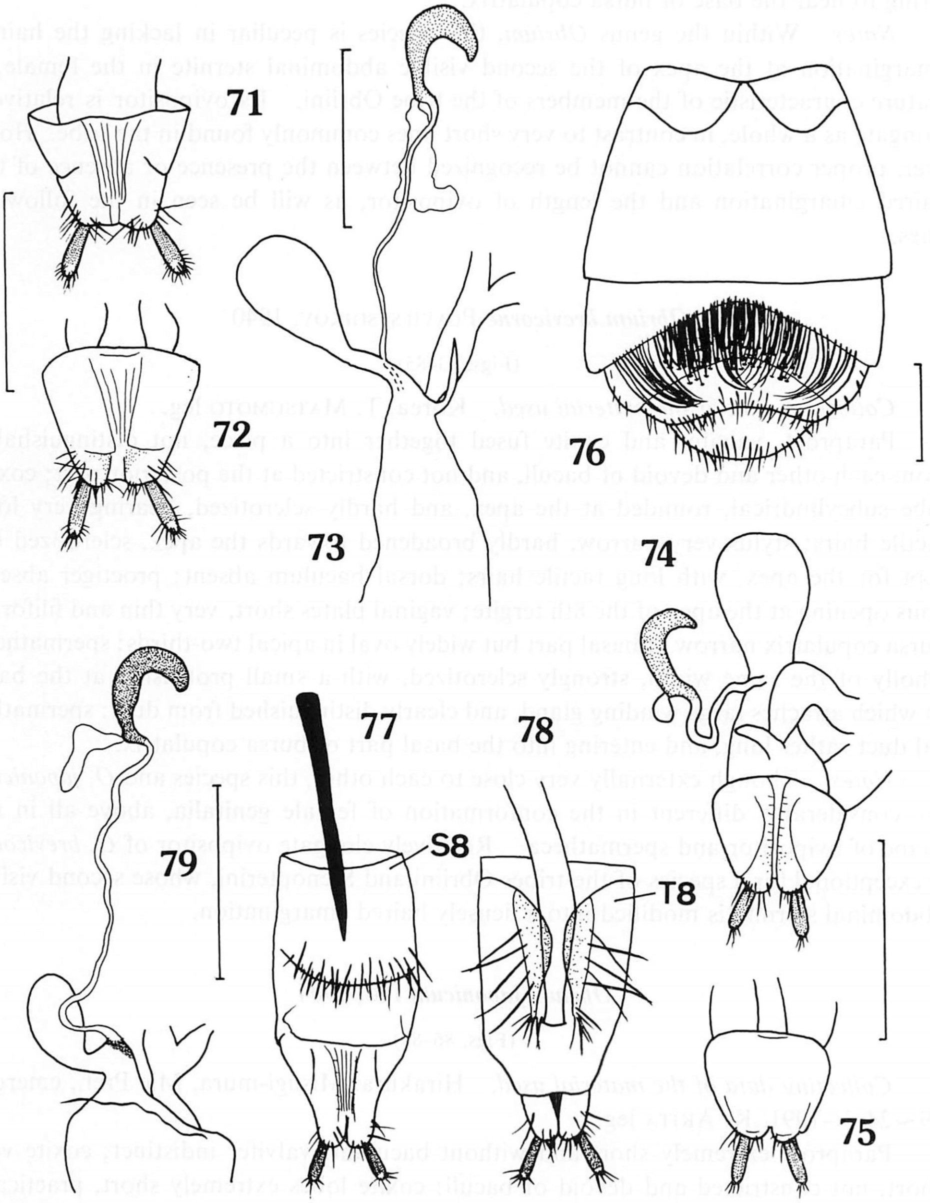
Paraproct, valvifer and coxite fused together into a piece, not distinguishable from one another, devoid of baculi, and narrowed towards the apex; coxite lobes short, with rather long tactile hairs, hardly sclerotized; stylus strongly sclerotized except for the apex, hardly broadened towards the apex; dorsal baculum absent; proctiger absent, anus open at the apex of the 8th tergite; vaginal plates long and very thin, filiform; bursa copulatrix short and oval, constricted at basal third; spermatheca strongly sclerotized, bent near the middle, weakly convex behind there, and bent again at the base, to which the gland is connected; spermathecal duct rather long and sinuate, entering into the narrowly but heavily sclerotized base of bursa copulatrix.

Obrium nakanei Ohbayashi, 1959

(Figs. 80–82)

Collecting data of the material used. Near Kurio, Minamiaiki-mura, Nagano Pref., 19–VI–1987, R. Inagawa leg.

Paraproct and coxite very short and devoid of baculi, valvifer indistinct; coxite lobes also very short, hardly sclerotized, and bearing many long tactile hairs; stylus very narrow, hardly broadened towards the apex, sclerotized except for the apex; dorsal baculum absent; proctiger absent so as to make the anus directly open at the dorsal base of paraproct; vagina unusually short and with many wrinkles; vaginal plates narrow and straight; bursa copulatrix narrow in basal half, well constricted at middle, and widely oval in apical half; spermatheca comma-shaped, with long and winding gland at the base; spermathecal duct rather narrow, sinuate and coiled once, en-



Figs. 71–79. —— 71–73, *Stenhomalus cleroides*; 74–76, *Longipalpus dilatipennis*; 77–79, *Pseudiphra elegans*. Ovipositor, ventral view (71, 74, 77; internal reproductive organs are also shown in Fig. 74); ovipositor, dorsal view (72, 75, 78); internal reproductive organs (73, 79); abdominal sternites, showing haired emargination of the second visible abdominal segment in the female (76). S8: 8th sternite; T8: 8th tergite. (Scale: 0.5 mm.)

tering to near the base of bursa copulatrix.

Notes. Within the genus *Obrium*, this species is peculiar in lacking the haired emargination at the apex of the second visible abdominal sternite in the female, a feature characteristic of the members of the tribe Obriini. Its ovipositor is relatively elongate as a whole, in contrast to very short ones commonly found in the tribe. However, proper correlation cannot be recognized between the presence or absence of the haired emargination and the length of ovipositor, as will be seen in the following lines.

Obrium brevicorne PLAVILSTSHIKOV, 1940

(Figs. 83–85)

Collecting data of the material used. Korea, T. MATSUMOTO leg.

Paraproct, valvifer and coxite fused together into a piece, not distinguishable from each other and devoid of baculi, and not constricted at the posterior part; coxite lobe subcylindrical, rounded at the apex, and hardly sclerotized, bearing very long tactile hairs; stylus very narrow, hardly broadened towards the apex, sclerotized except for the apex, with long tactile hairs; dorsal baculum absent; proctiger absent, anus opening at the apex of the 8th tergite; vaginal plates short, very thin and filiform; bursa copulatrix narrow in basal part but widely oval in apical two-thirds; spermatheca wholly of the same width, strongly sclerotized, with a small protrusion at the base, to which attaches large winding gland, and clearly distinguished from duct; spermathecal duct rather long, and entering into the basal part of bursa copulatrix.

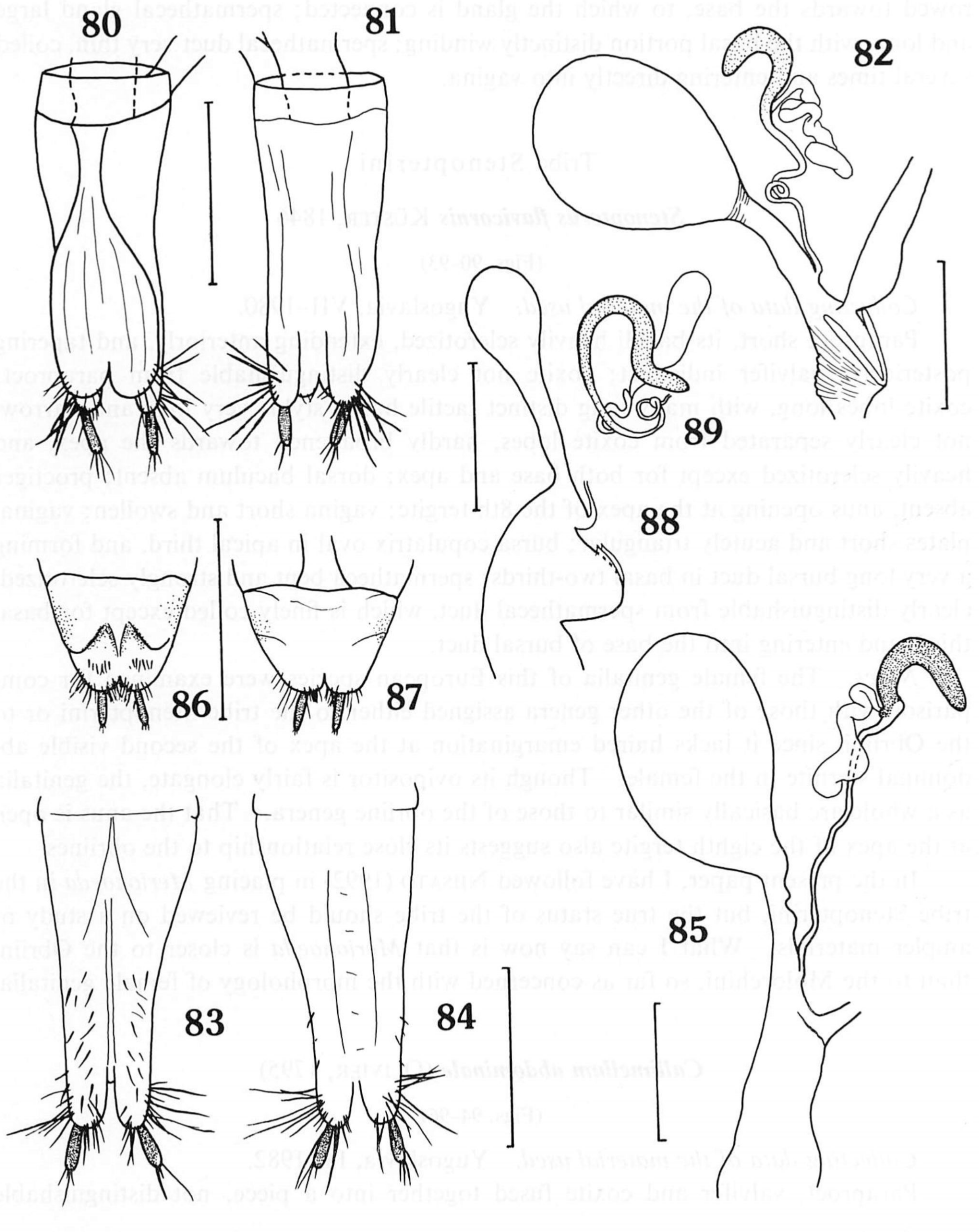
Notes. Though externally very close to each other, this species and *O. japonicum* are considerably different in the conformation of female genitalia, above all in the shape of ovipositor and spermatheca. Relatively elongate ovipositor of *O. brevicorne* is exceptional for a species of the tribes Obriini and Stenopterini, whose second visible abdominal sternite is modified into a densely haired emargination.

Obrium japonicum PIC, 1904

(Figs. 86–89)

Collecting data of the material used. Hirakura, Misugi-mura, Mie Pref., emerged 19～24–V–1991, K. AKITA leg.

Paraproct extremely short and without baculum; valvifer indistinct; coxite very short, not constricted and devoid of baculi; coxite lobes extremely short, practically absent, with rather long tactile hairs; stylus short and very narrow, hardly broadened towards the apex; dorsal baculum absent; proctiger absent so as to make the anus directly open at the dorsal base of paraproct; vaginal plates very short though broad; vagina swollen at base; bursa copulatrix moderately swollen at the anterior part, gradually narrowed towards the base; spermatheca long and narrow, bent at the middle and then strongly reflexed in the apical part, not constricted, gradually nar-



Figs. 80–89. —— 80–82, *Obrium nakanei*; 83–85, *O. brevicorne*; 86–89, *O. japonicum*. Ovipositor, ventral view (80, 83, 86); ovipositor, dorsal view (81, 84, 87); internal reproductive organs (82, 85, 88); spermatheca (89). (Scale: 0.5 mm.)

rowed towards the base, to which the gland is connected; spermathecal gland large and long, with the basal portion distinctly winding; spermathecal duct very thin, coiled several times and entering directly into vagina.

Tribe Stenopterini

Stenopterus flavicornis KÜSTER, 1846

(Figs. 90–93)

Collecting data of the material used. Yugoslavia, VII–1980.

Paraproct short, its baculi heavily sclerotized, extending anteriorly, and tapering posteriorly; valvifer indistinct; coxite not clearly distinguishable from paraproct; coxite lobes long, with many long distinct tactile hairs; stylus very long and narrow, not clearly separated from coxite lobes, hardly broadened towards the apex, and heavily sclerotized except for both base and apex; dorsal baculum absent; proctiger absent, anus opening at the apex of the 8th tergite; vagina short and swollen; vaginal plates short and acutely triangular; bursa copulatrix oval in apical third, and forming a very long bursal duct in basal two-thirds; spermatheca bent and strongly sclerotized, clearly distinguishable from spermathecal duct, which is finely coiled except for basal third, and entering into the base of bursal duct.

Notes. The female genitalia of this European species were examined for comparison with those of the other genera assigned either to the tribe Stenopterini or to the Obriini, since it lacks haired emargination at the apex of the second visible abdominal sternite in the female. Though its ovipositor is fairly elongate, the genitalia as a whole are basically similar to those of the obriine genera. That the anus is open at the apex of the eighth tergite also suggests its close relationship to the obriines.

In the present paper, I have followed NIISATO (1992) in placing *Merionoeda* in the tribe Stenopterini, but the true status of the tribe should be reviewed on a study of ampler materials. What I can say now is that *Merionoeda* is closer to the Obriini than to the Molorchini, so far as concerned with the morphology of female genitalia.

Callimellum abdominale (OLIVIER, 1795)

(Figs. 94–96)

Collecting data of the material used. Yugoslavia, IV–1982.

Paraproct, valvifer and coxite fused together into a piece, not distinguishable

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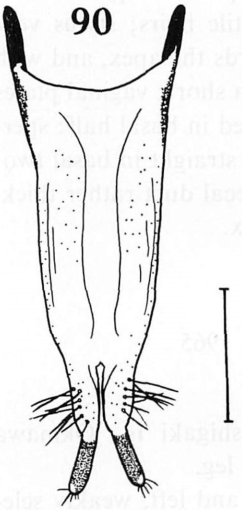
Figs. 90–99. —— 90–93, *Stenopterus flavicornis*; 94–96, *Callimellum abdominale*; 97–99, *Merionoeda* (*Ocytasia*) *formosana iriomotensis*. Ovipositor, ventral view (90, 94, 97); ovipositor, dorsal view (91, 95, 98); internal reproductive organs (92, 96, 99); oblique ventral view of separated 8th sternite and tergite enveloping ovipositor, the rectum extends to the apex of the 8th tergite and opens there (93). S8: 8th sternite; T8: 8th tergite; R: rectum; A: anus. (Scale: 0.5 mm.)



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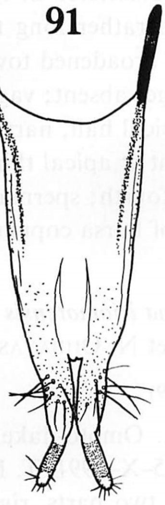

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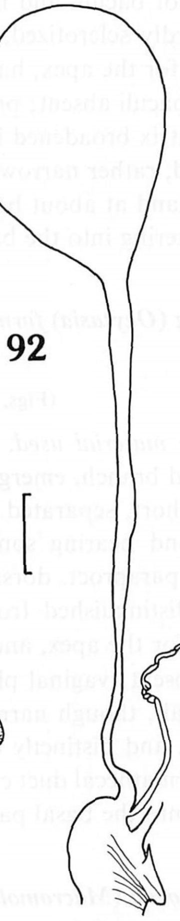

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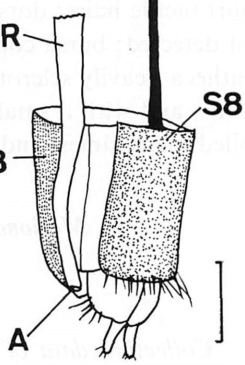

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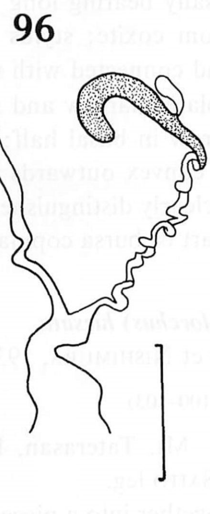

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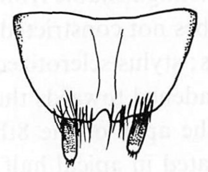

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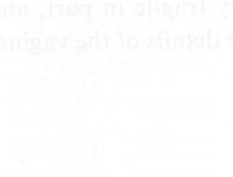

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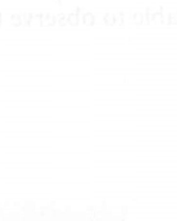

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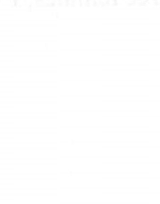

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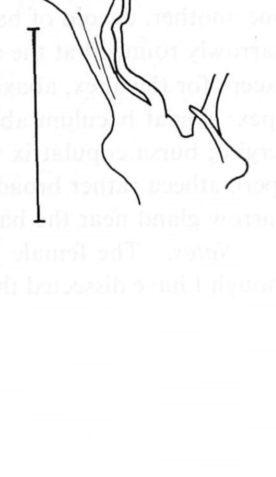


99

from one another, devoid of baculi, and not constricted at the posterior part; coxite lobes extremely short, hardly sclerotized, with rather long tactile hairs; stylus very narrow, sclerotized except for the apex, hardly broadened towards the apex, and with short tactile hairs; dorsal baculi absent; proctiger absent; vagina short; vaginal plates not detected; bursa copulatrix broadened in apical half, narrowed in basal half; spermatheca heavily sclerotized, rather narrow, bent at apical third, straight in basal two-thirds, and with a small gland at about basal fourth; spermathecal duct rather thick, coiled many times, and entering into the base of bursa copulatrix.

Merionoeda* (*Ocytasia*) *formosana iriomotensis
K. et N. OHBAYASHI, 1965

(Figs. 97–99)

Collecting data of the material used. Mt. Omoto-dake, Ishigaki Is., Okinawa Pref., coll. 3–IV–1991, dead branch, emerged 15–X–1991, T. ITO leg.

Paraproct extremely short, separated into two parts, right and left, weakly sclerotized, without baculi, and bearing some tactile hairs; valvifer indistinct; coxite ventrally agglutinate with paraproct, dorsally bearing long and distinct tactile hairs; coxite lobes not clearly distinguished from coxite; stylus short, hardly broadened apicad, sclerotized except for the apex, and connected with the apex of coxite; dorsal baculi absent; proctiger absent; vaginal plates narrow and straight; bursa copulatrix large and oval in apical half, though narrow in basal half; spermatheca fairly large, well sclerotized, C-shaped, and distinctly convex outwards at the base, to which attaches the large gland; spermathecal duct clearly distinguished from the capsule, coiled many times, and entering into the basal part of bursa copulatrix.

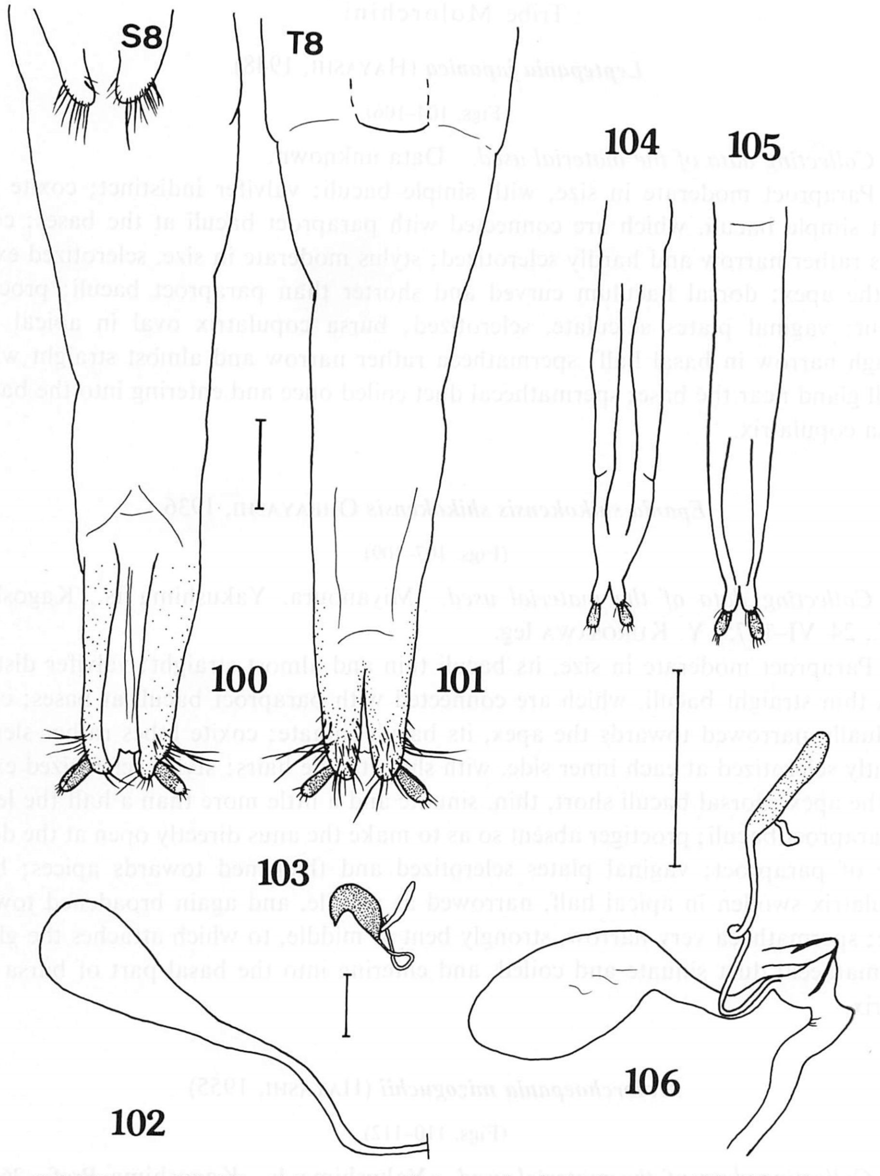
Merionoeda* (*Macromolorchus*) *hirsuta
(MITONO et NISHIMURA, 1936)

(Figs. 100–103)

Collecting data of the material used. Mt. Taterasan, Izuhara-machi, Tsushima Is., Nagasaki Pref., 24～27–VII–1985, A. SAITO leg.

Paraproct, valvifer and coxite fused together into a piece, not distinguishable from one another, devoid of baculi, and sclerotized as a whole; coxite lobes not constricted, narrowly rounded at the apices, and bearing many long tactile hairs; stylus sclerotized except for the apex, abaxially articulated to coxite lobe, hardly broadened towards the apex; dorsal baculum absent; proctiger absent, anus opening at the apex of the 8th tergite; bursa copulatrix with long bursal duct, and moderately dilated in apical half; spermatheca rather broad, bent at middle, narrowed towards the pointed apex, with a narrow gland near the base; spermathecal duct very thin.

Notes. The female genitalia of *Merionoeda hirsuta* are very fragile in part, and though I have dissected three females, I was unable to observe the details of the vagina,



Figs. 100–106. —— 100–103, *Merionoeda* (*Macromolorchus*) *hirsuta*; 104–106, *Leptepania japonica*. Ovipositor, ventral view (100, 104); ovipositor, dorsal view (101, 105); bursa copulatrix (102); spermatheca (103); internal reproductive organs (106). S8: 8th sternite; T8: 8th tergite. (Scale: 0.5 mm.)

vaginal plates, and the basal portions of the ducts. What is described here is, however, sufficient to illustrate the peculiarities of this species.

Tribe Molorchini

Leptepania japonica (Hayashi, 1948)

(Figs. 104–106)

Collecting data of the material used. Data unknown.

Paraproct moderate in size, with simple baculi; valvifer indistinct; coxite with short simple baculi, which are connected with paraproct baculi at the bases; coxite lobes rather narrow and hardly sclerotized; stylus moderate in size, sclerotized except for the apex; dorsal baculum curved and shorter than paraproct baculi; proctiger absent; vaginal plates aciculate, sclerotized; bursa copulatrix oval in apical half, though narrow in basal half; spermatheca rather narrow and almost straight with a small gland near the base; spermathecal duct coiled once and entering into the base of bursa copulatrix.

Epania shikokensis shikokensis Ohbayashi, 1936

(Figs. 107–109)

Collecting data of the material used. Miyanoura, Yakushima Is., Kagoshima Pref., 24–VI–1975, Y. Kurosawa leg.

Paraproct moderate in size, its baculi thin and almost straight; valvifer distinct, with thin straight baculi, which are connected with paraproct baculi at bases; coxite gradually narrowed towards the apex, its baculi sinuate; coxite lobes rather slender, slightly sclerotized at each inner side, with short tactile hairs; stylus sclerotized except for the apex; dorsal baculi short, thin, sinuate and a little more than a half the length of paraproct baculi; proctiger absent so as to make the anus directly open at the dorsal base of paraproct; vaginal plates sclerotized and thickened towards apices; bursa copulatrix swollen in apical half, narrowed at middle, and again broadened towards base; spermatheca very narrow, strongly bent at middle, to which attaches the gland; spermathecal duct sinuate and coiled, and entering into the basal part of bursa copulatrix.

Molorchoepania mizoguchii (Hayashi, 1955)

(Figs. 110–112)

Collecting data of the material used. Yakushima Is., Kagoshima Pref., 26–VI–1954, K. Matsuda leg.

Paraproct moderate in size, its baculi thin and almost straight, connected with coxite baculi at the apices; valvifer indistinct; coxite slightly narrowed apicad; coxite

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Figs. 107–115. —— 107–109, *Epania shikokensis shikokensis*; 110–112, *Molorchoepania mizoguchii*; 113–115, *Molorchus pinivorus*. Ovipositor, ventral view (107, 110, 113); ovipositor, dorsal view (108, 111, 114); internal reproductive organs (109, 112, 115). (Scale: 0.5 mm.)

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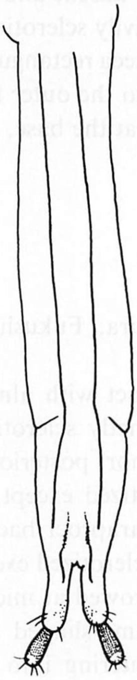

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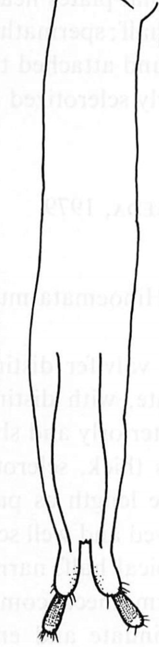

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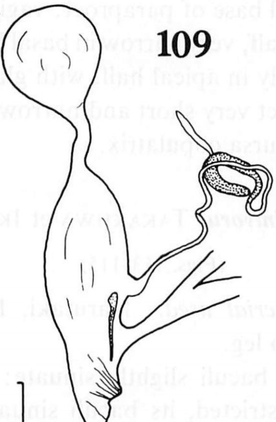

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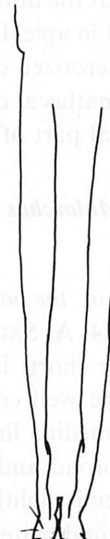

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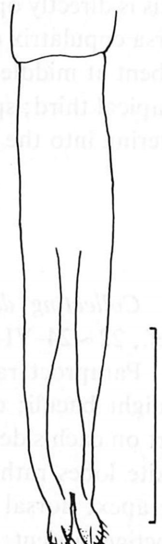

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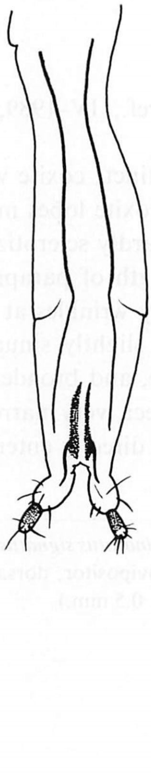

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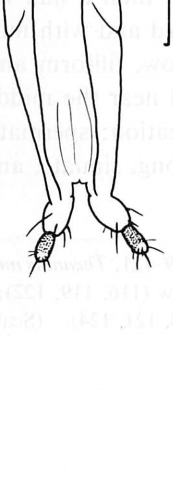

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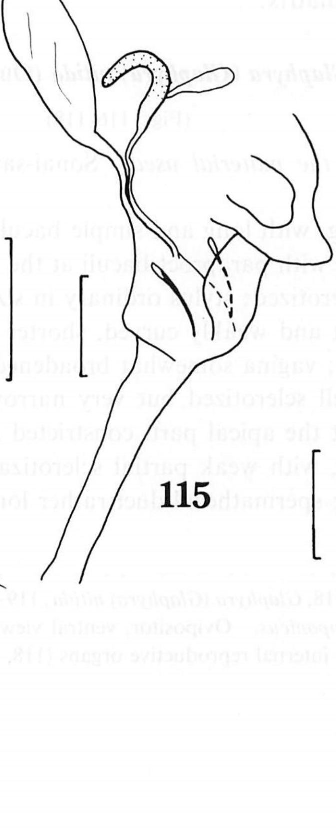

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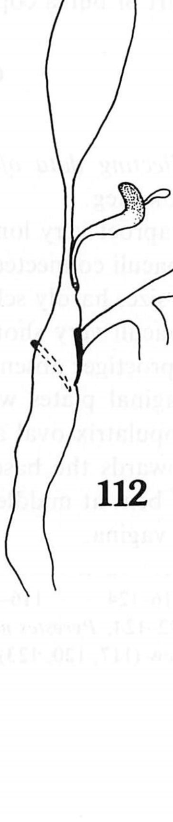

lobes rather broad, hardly sclerotized, with tactile hairs; stylus slightly sclerotized at the basal part; dorsal baculi shorter than paraproct baculi; proctiger absent and the anus is directly open at the dorsal base of paraproct; vaginal plates heavily sclerotized; bursa copulatrix oval in apical half, very narrow in basal half; spermatheca rectangularly bent at middle, sclerotized only in apical half, with gland attached to the outer face of apical third; spermathecal duct very short and narrowly sclerotized at the base, and entering into the basal part of bursa copulatrix.

Molorchus pinivorus TAKAKUWA et IKEDA, 1979

(Figs. 113–115)

Collecting data of the material used. Narutaki, Hinoemata-mura, Fukushima Pref., 22~24–VI–1984, A. SAITO leg.

Paraproct rather short, its baculi slightly sinuate; valvifer distinct with almost straight baculi; coxite well constricted, its baculi sinuate, with distinctly sclerotized part on each side of median line, which is rather long anteriorly and short posteriorly; coxite lobes rather broad and hardly sclerotized; stylus thick, sclerotized except for the apex; dorsal baculi slightly sinuate and of the same length as paraproct baculi; proctiger absent; vaginal plates very narrow, weakly curved and well sclerotized except for the apical parts; bursa copulatrix rather broad in apical half, narrowed at middle and somewhat broadened again towards the base; spermatheca comma-shaped and weakly sclerotized; spermathecal duct short, slightly sinuate and entering into the basal part of bursa copulatrix.

Glaphyra (Glaphyra) nitida (OBIKA, 1973)

(Figs. 116–118)

Collecting data of the material used. Sonai-sawa, Aomori Pref., IV–1989, T. NAKAMURA leg.

Paraproct very long, with long and simple baculi; valvifer indistinct; coxite with simple baculi connected with paraproct baculi at the anterior ends; coxite lobes moderate in size, hardly sclerotized; stylus ordinary in size and shape, hardly sclerotized; dorsal baculi very short and weakly curved, shorter than a half length of paraproct baculi; proctiger absent; vagina somewhat broadened and with many wrinkles at the base; vaginal plates well sclerotized but very narrow, filiform and slightly sinuate; bursa copulatrix oval at the apical part, constricted near the middle, and broadened again towards the base, with weak partial sclerotization; spermatheca very narrow, strongly bent at middle; spermathecal duct rather long, sinuate, and directly entering into the vagina.

Figs. 116–124. —— 116–118, *Glaphyra (Glaphyra) nitida*; 119–121, *Thranius multinotatus signatus*; 122–124, *Pyrestes nipponicus*. Ovipositor, ventral view (116, 119, 122); ovipositor, dorsal view (117, 120, 123); internal reproductive organs (118, 121, 124). (Scale: 0.5 mm.)

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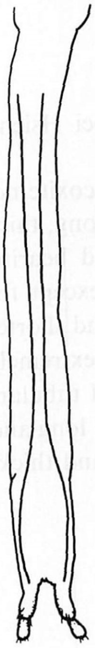

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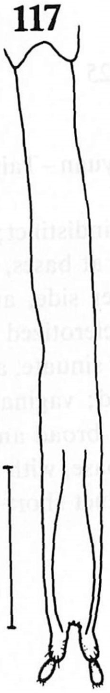

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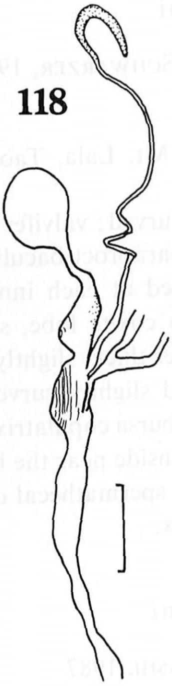

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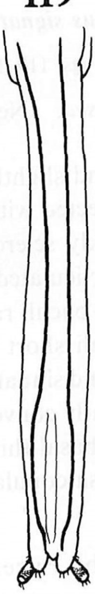

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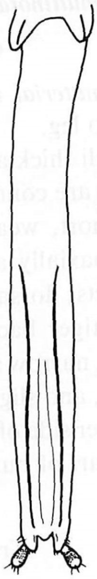

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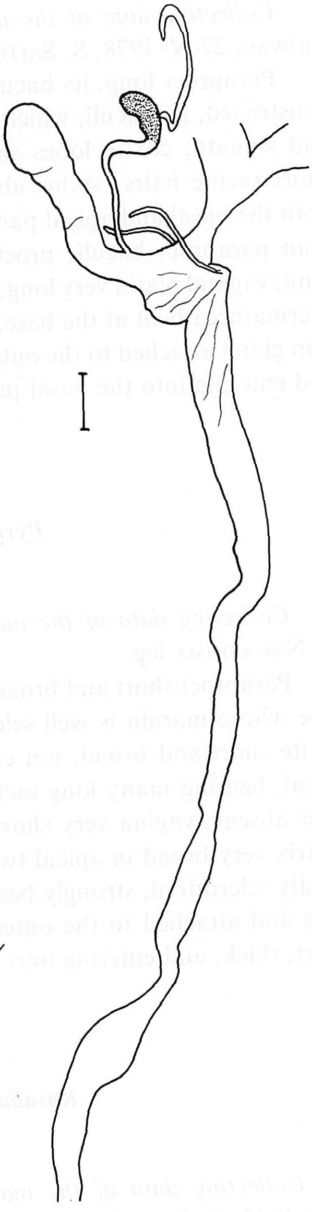

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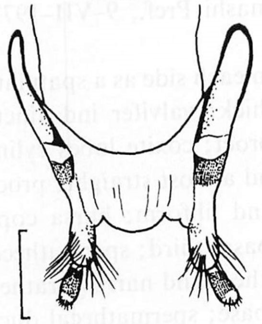

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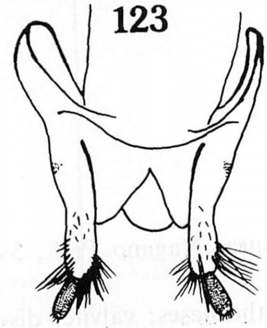

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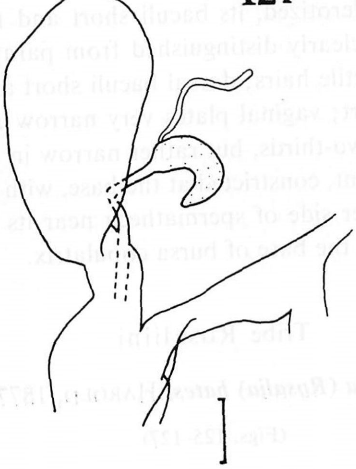


Tribe Thraniini

Thranius multinotatus signatus SCHWARZER, 1925

(Figs. 119–121)

Collecting data of the material used. Near Mt. Lala, Taoyuan–Taipei Hsiens, Taiwan, 27–V–1978, S. SAITO leg.

Paraproct long, its baculi thick and slightly curved; valvifer indistinct; coxite not constricted, its baculi, which are connected with paraproct baculi at bases, long, thick and sinuate; coxite lobes short, weakly sclerotized at each inner side, and bearing short tactile hairs; stylus abaxially articulated to coxite lobe, sclerotized except for both the basal and apical parts; dorsal baculi rather thick, slightly sinuate, and shorter than paraproct baculi; proctiger baculi short and slightly curved; vagina extremely long; vaginal plates very long, narrow and sinuate; bursa copulatrix broad and tubular; spermatheca bent at the base, and slightly convex inside near the base, with a long and thin gland attached to the outer side of basal third; spermathecal duct short and thick, and entering into the basal part of bursa copulatrix.

Tribe Pyrestini

Pyrestes nipponicus HAYASHI, 1987

(Figs. 122–124)

Collecting data of the material used. Hinoharu, Yamanashi Pref., 9–VII–1977, Y. NAGASHIMA leg.

Paraproct short and broad, though anteriorly extending on each side as a spatulate lobe whose margin is well sclerotized, its baculi short and thick; valvifer indistinct; coxite short and broad, not clearly distinguished from paraproct; coxite lobes cylindrical, bearing many long tactile hairs; dorsal baculi short and almost straight; proctiger absent; vagina very short; vaginal plates very narrow and filiform; bursa copulatrix very broad in apical two-thirds, but rather narrow in basal third; spermatheca hardly sclerotized, strongly bent, constricted at the base, with the gland narrow, rather long and attached to the outer side of spermatheca near its base; spermathecal duct short, thick, and entering into the base of bursa copulatrix.

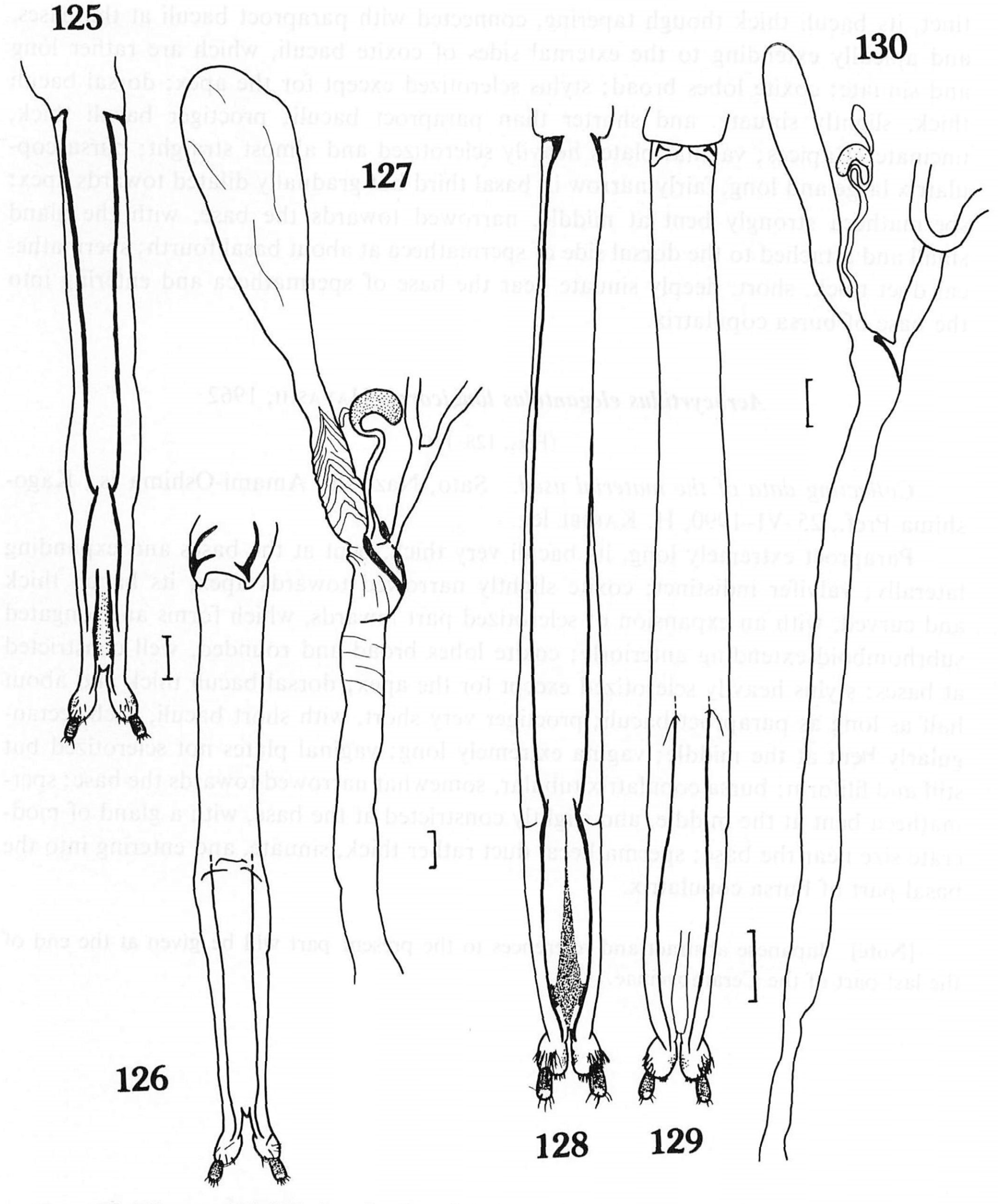
Tribe Rosaliini

Rosalia* (*Rosalia*) *batesi HAROLD, 1877

(Figs. 125–127)

Collecting data of the material used. Hohnoh, Otari-mura, Nagano Pref., 3–VIII–1984, A. SAITO leg.

Paraproct long, its baculi very thick, externally bent at the bases; valvifer dis-



Figs. 125–130. —— 125–127, *Rosalia* (*Rosalia*) *batesi*; 128–130, *Acrocyrtidus elegantulus longicornis*. Ovipositor, ventral view (125, 128); ovipositor, dorsal view (126, 129); internal reproductive organs (127, 130). (Scale: 0.5 mm.)

tinct, its baculi thick though tapering, connected with paraproct baculi at the bases, and apically extending to the external sides of coxite baculi, which are rather long and sinuate; coxite lobes broad; stylus sclerotized except for the apex; dorsal baculi thick, slightly sinuate, and shorter than paraproct baculi; proctiger baculi thick, uncinate at apices; vaginal plates heavily sclerotized and almost straight; bursa copulatrix large and long, fairly narrow in basal third but gradually dilated towards apex; spermatheca strongly bent at middle, narrowed towards the base, with the gland small and attached to the dorsal side of spermatheca at about basal fourth; spermathecal duct thick, short, deeply sinuate near the base of spermatheca and entering into the base of bursa copulatrix.

Acrocyrtidus elegantulus longicornis HAYASHI, 1962

(Figs. 128–130)

Collecting data of the material used. Sato, Naze-shi, Amami-Oshima Is., Kagoshima Pref., 25–VI–1990, H. KARIBE leg.

Paraproct extremely long, its baculi very thick, bent at the bases and expanding laterally; valvifer indistinct; coxite slightly narrowed towards apex, its baculi thick and curved, with an expansion of sclerotized part inwards, which forms an elongated subrhomboid extending anteriorly; coxite lobes broad and rounded, well constricted at bases; stylus heavily sclerotized except for the apex; dorsal baculi thick and about half as long as paraproct baculi; proctiger very short, with short baculi, each rectangularly bent at the middle; vagina extremely long; vaginal plates not sclerotized but stiff and filiform; bursa copulatrix tubular, somewhat narrowed towards the base; spermatheca bent at the middle, and slightly constricted at the base, with a gland of moderate size near the base; spermathecal duct rather thick, sinuate, and entering into the basal part of bursa copulatrix.

[Note] Japanese abstract and references to the present part will be given at the end of the last part of the Cerambycinae.

Elytra, Tokyo, **20** (1): 119–121, May 15, 1992

A New *Xenocerus* (Coleoptera, Anthribidae) from Sulawesi, Indonesia

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Abstract A new species of the anthribid genus *Xenocerus* is described from central Sulawesi under the name of *X. kaorui*. It resembles *X. platyzona* JORDAN, 1913, from the Philippines in general appearance.

The genus *Xenocerus* SCHOENHERR, 1833, belongs to the anthribid tribe Xenocerini of the subfamily Anthribinae. This is the largest genus in the Anthribidae, comprising about one hundred species known up to the present, which are distributed in the Oriental Region and the northern part of the Australian Region.

Recently, a lot of Southeast Asian anthribids was submitted to me for taxonomic study through the courtesy of Mr. Kaoru SAKAI of Tokyo. In this collection, I found an elegant species of this genus obtained inc entral Sulawesi. It must be a new species, and will be described in the present paper.

Before going further, I wish to express my sincere gratitude to Professor Y. WATANABE of the Laboratory of Entomology, Tokyo University of Agriculture, and Professor K. MORIMOTO of the Entomological Laboratory, Kyushu University, for their constant guidance and encouragement. I am much indebted to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his kind reading the original manuscript of the present paper, and to Mr. K. SAKAI for his kindness in providing me with the lot of Southeast Asian anthribids for my study.

Xenocerus kaorui SENOH, sp. nov.

(Fig. 1)

Length: 17 mm (from apical margin of rostrum to apices of elytra). Relatively small species.

Male. Colour entirely black. Pubescence dense, white, brown and black; head covered with white hairs except for vertex which has a triangular black patch; antenna with white rings in basal parts of 4th and 5th segments, and from apical half of 9th to basal three-fourths of 10th; pronotum with seven stripes, black ones on both sides, white ones in median and sublateral parts, brown ones in submedian parts; scutellum with white hairs; elytron with a small round white patch in basal part, and a black broad ring around the patch, covered with brown hairs in apical two-fifths,

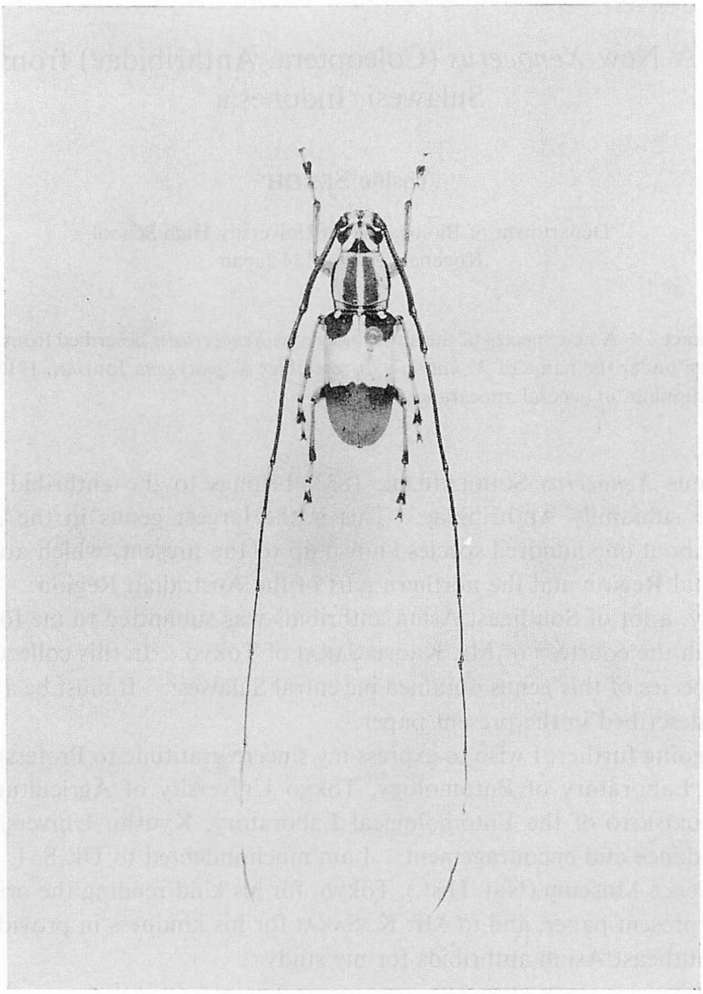

Fig. 1. *Xenocerus kaorui* SENOH, sp. nov., ♂, from C. Sulawesi, Indonesia.

and with white ones in the remaining part; pygidium with white hairs except for a brown median stripe; underside covered with white hairs except for median part of 5th visible sternite which bears black hairs; legs mainly covered with white hairs.

Head with a shallow longitudinal sulcus between eyes which are strongly emarginate in anterior margins; rostrum rugged, with a deep longitudinal sulcus between basal parts of antennae; basal width of rostrum about 2.3 times as wide as the shortest distance between eyes. Antennae very long, about 3.0 times as long as the length of body, 3rd segment long, about 2.3 times as long as scape, proportions in length from 1st to 11th segments about 12: 64: 28: 84: 39: 52: 45: 64: 41: 43: 34, apical segment somewhat curved and pointed.

Pronotum somewhat barrel-shaped, about 1.1 times as wide as long; dorsal transverse carina broadly rounded, and roundly connected with each lateral carina, the latter somewhat declivous in basal half and horizontally extending to the subapical part of side margin; carinula relatively long, connected with lateral carina. Elytra relatively short and thick, about 1.7 times as long as wide, lateral margins gradually narrowed posteriad, basal margin almost straight; strial punctures very small. Pygidium linguiform, vertical, about 1.1 times as wide as long, lateral margins reflexed, and gradually convergent towards broadly rounded apex, disc moderately swollen at the centre.

Mesosternal process linguiform, gradually narrowed towards rounded apex, and bending backwards in apical half; viewed from side, venter slightly arcuate from 1st to 4th visible sternites, 5th slanting. Legs relatively short; anterior femur nearly as long as the median which is shorter than the posterior; anterior tibia longer than the posterior which is a little longer than the median; anterior tarsus shorter than the posterior which is a little shorter than the median.

Female. Unknown.

Holotype ♂, Palolo, C. Sulawesi, Indonesia, IX–1991. The holotype is deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Distribution. Indonesia (C. Sulawesi).

Notes. In general appearance, this species resembles *Xenocerus platyzona* JORDAN, 1913, known from the Philippines, but can be distinguished from the latter by the following characteristics: 3rd segment of antenna long, 5th not sinuate, 2nd and 5th devoid of nappy hairs; three white stripes of pronotum reaching the anterior and posterior margins; no patch on apical two-fifths of elytra; legs mainly covered with white hairs. The present species is dedicated to Mr. Kaoru SAKAI of Tokyo, who offered a number of specimens of Southeast Asian anthribids for my study.

要約

妹尾俊男: スラウェシ から発見された *Xenocerus* 属 (ヒゲナガゾウムシ科) の1新種. ── 筆者は最近, 東京都の酒井　香氏のご好意により, 多数の東南アジア産の大型ヒゲナガゾウムシ類の恵与を受けた. そのなかに, スラウェシ島中部で得られた *Xenocerus* 属に含まれる1新種を発見したので, *Xenocerus kaorui* SENOH と命名し, 記載した. この種は, フィリピンから知られている *X. platyzona* JORDAN, 1913 に似ているが 触角の構造, とくに第3節がいちじるしく長い点や背面の斑紋などの差異によって区別できる.

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HELLER, K. M., 1919. Philippinische Anthribidae. *Tydschr. Ent.*, **61**: 242–265.

JORDAN, K., 1913. The Oriental Anthribidae of the VAN DE POLL collection. *Novit. zool.*, **20**: 257–277.

Elytra, Tokyo, **20** (1): 122, May 15, 1992

A New Record of *Ophrygonius rajanus* (Coleoptera, Passalidae) from the Malay Peninsula

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and

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Five species of the passalid genus *Ophrygonius* have been known from the Malay Peninsula (HINCKS & DIBB, 1935, 1958). Recently, we had an opportunity to examine some passalid beetles from the Malay Peninsula by courtesy of Mr. H. ASHIDA and found *Ophrygonius rajanus* VAN DOESBURG among them. This is the first record of *O. rajanus* from the Malay Peninsula.

Specimens examined. 4 ♂♂, 5 ♀♀, Mt. Brinchang (2,000 m in altitude), Malay Peninsula, 17–III–1992, H. ASHIDA leg.

Distribution. Borneo, Malay Peninsula (new record).

Notes. VAN DOESBURG (1941) described this species based on the specimen labelled: "Butik Raja, über 2200 m. 15/20–12–1924" (we suppose that "Butik" is the misspelling of "Bukit," meaning hill or mountain in Malay) in the collection of the Hamburg Zoological Museum, and he regarded the type locality of *O. rajanus*, "Butik Raja" as in Borneo, although showing no concrete evidence for this interpretation. On the other hand, there is the village "Kampung Raja" near the locality from where Mr. ASHIDA collected *O. rajanus* on Mt. Brinchang. This suggests the possibility that "Butik Raja" is not in Borneo but in Kampung Raja or elsewhere around there on Mt. Brinchang, Malay Peninsula. However, we defer our conclusion until further evidence will be available.

This species lives in bisexual pairs in the gallery, filled with detritus, excavated into tough root of dead woods (ASHIDA, personal communication).

We express our sincere thanks to Mr. H. ASHIDA for his kind supply of specimens.

References

HINCKS, W. D., & J. R. DIBB, 1935. Passalidae. *In* JUNK, W., & S. SCHENKLING (eds.), *Coleopterorum Catalogus*, pars 142: 1–118. W. Junk, Berlin.

——— & ——— 1958. Passalidae. *In* HINCKS, W. D. (ed.), *Coleopterorum Catalogus Supplementa*, pars 142: 1–32. W. Junk, Berlin.

VAN DOESBURG, P. H., 1941. A new, flightless, *Ophrygonius* (ZANG) from Borneo. *Tijdschr. Ent.*, **84**: 356–357.

Elytra, Tokyo, **20** (1): 123–125, May 15, 1992

Description of the Male of *Mechistocerus okumai* (Coleoptera, Curculionidae)*

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Mechistocerus okumai MORIMOTO, 1987, was described on one female and has been known only from Amami-Oshima Island until now. Recently, however, I had an opportunity to examine three specimens of this species, two males from Okinawa-hontô Is. and a female from Ishigaki-jima Is.

In this paper, these three specimens are additionally recorded, and the male is described and illustrated for the first time.

I wish to express my hearty thanks to Prof. K. MORIMOTO of Kyushu University, and Prof. Y. WATANABE and Dr. S. OKAJIMA of Tokyo University of Agriculture for their kind reading of the manuscript and constant guidance.

Mechistocerus okumai MORIMOTO

(Figs. 1–2)

Mechistocerus okumai MORIMOTO, 1987, J. Fac. Agric. Kyushu Univ., **31**: 327–328.

The male is different from the female in the following points: Fore tibiae fringed internally with long yellowish setae on apical two-thirds, fore tarsi with similar setae, especially on basal two segments; mid tibiae also fringed dorso-internally with prostrate long yellowish setae on apical two-thirds; scales longer and suberect on the ventral side of fore femur at base, on inner surface of trochanters, on ventral surface of coxae, and on lateral and posterior peripheral areas of the median depression on metasternum and basal ventrites; first ventrite and basal half of second ventrite weakly depressed medially, median area of the depression on first ventrite with short scales.

Aedeagus as figured, internal sac with tear-shaped spicules.

Specimens examined. 2♂, Yona, Okinawa-hontô Is., Okinawa Pref., 16–IV–1991, H. KOJIMA leg.; 1♀, Takeda-rindô, Ishigaki-jima Is., Okinawa Pref., 20–IV–1990, Y. OKUSHIMA leg.

Distribution. Japan (Amami-Oshima, Okinawa-hontô and Ishigaki-jima Isls.)

Remarks. This species is characterized by the orange brown scales covering head, postmedian band and small indefinite patches on elytra. However, the female from Ishigaki-jima Is. listed above has postmedian band and small indefinite patches, which are covered with greyish brown setae.

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* Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 4, No. 50).

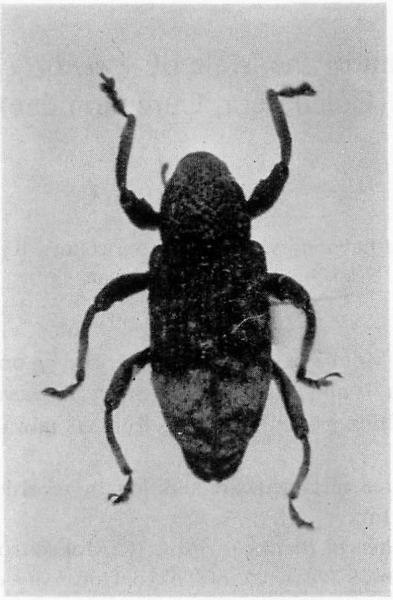

Fig. 1. *Mechistocerus okumai* MORIMOTO, male.

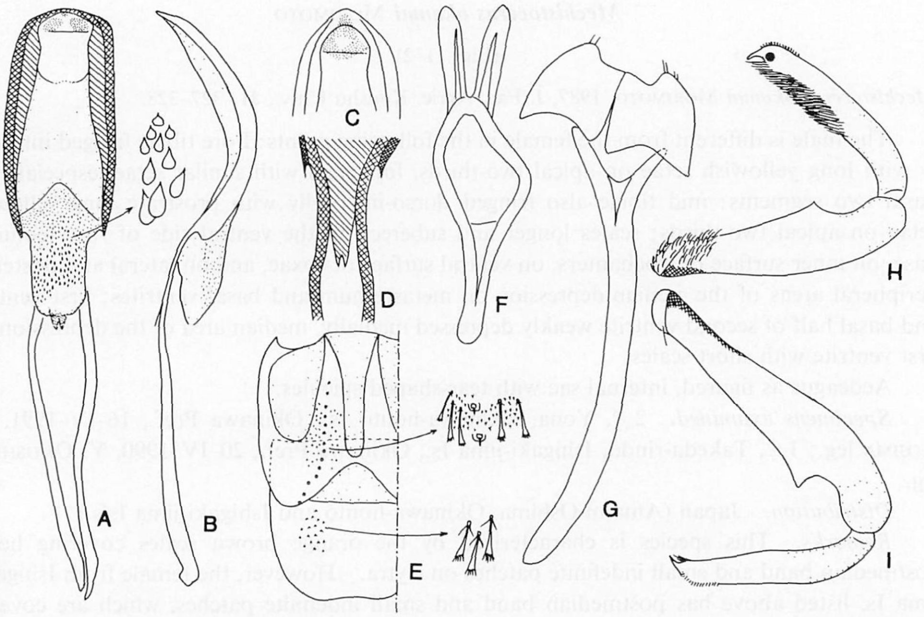

Fig. 2. *Mechistocerus okumai* MORIMOTO, ♂. A, Penis, dorsal view and asperites of internal sac, enlarged; B, ditto, lateral; C, apex of penis; D, basal part of penis, ventral; E, pygidium and propygidium, and scapers, magnified; F, tegmen and parameres; G, genital segment; H, fore leg; I, hind leg.

This species is characteristic among slender species of *Mechistocerus* in having the fringed fore and mid tibiae in the male.

Reference

MORIMOTO, K., 1987. The family Curculionidae of Japan VI. Tribe Mechistocerini Part 1 (Insecta, Coleoptera). *J. Fac. Agric. Kyushu Univ., Fukuoka*, **31**: 321–343.

Elytra, Tokyo, **20** (1): 125, May 15, 1992

Occurrence of *Mecotropis duplicatus* JORDAN (Coleoptera, Anthribidae) in West Sumatra

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Mecotropis duplicatus JORDAN (1911, p. 93) was described on a single male specimen collected at the Matang Road, Sarawak, in the Island of Borneo. After that, there has been no record of this species.

Recently, through the courtesy of Mr. Kaoru SAKAI of Tokyo, I had an opportunity to examine *Mecotropis duplicatus* JORDAN, 1911, collected in the Island of Sumatra. The collecting data of the specimen taken are as follows:

1 ♂, Pajang, Padang, W. Sumatra, Indonesia, XII–1990.

Distribution. Sumatra and Borneo.

I wish to thank Mr. Kaoru SAKAI for his kindness always in submitting invaluable specimens to me for taxonomic study.

Reference

JORDAN, K., 1911. New Anthribidae. *Novit. zool.*, **18**: 92–116.

Elytra, Tokyo, **20** (1): 126, May 15, 1992

新刊紹介

Morphological and Phylogenetical Study on the Larvae of Pleurostict Lamellicornia in Japan. By Hiromasa SAWADA. 132 pp., 157 pls. 1991. Tokyo University of Agriculture Press, Tokyo.

この論文は，澤田玄正先生が，1961年に学位請求論文として東京農業大学に提出された原稿を，印刷・刊行したものである．巻末の「出版のいきさつ」に書かれているように，澤田先生はこの論文を，大学での多忙な職務から解放された退職後に，大幅に手を入れたうえで刊行することを考えられていたが，折悪しく退職直後に発病，以後闘病生活を余儀なくされ，ついにご自身の手で刊行できないまま他界された．今度，澤田先生の遺志を体して，春子未亡人と長男の玄道氏の手によってこの論文が印刷・発刊されたが，コガネムシの系統や幼虫の形態学の基礎的な面に関心をもつ者ばかりでなく，多くの害虫を含むこの類の防除に係わる林業関係者にとっても，きわめて有益な刊行物である．

論文の内容は，日本産食葉コガネムシ群の8亜科27属にまたがる54種の幼虫について，取り扱った種のリストと検視標本，そして謝辞を含んだ緒言に続いて，本論が(A)比較形態学的検討，(B)系統学的考察の2章で構成され，49の主要な参考文献のあとに157図版が付されている．

(A)比較形態学的検討の部分では，2種は1齢幼虫（コカブトムシ，クロカナブン），6種は3齢幼虫脱皮殻（ヒメカンショコガネ，ヨツバコガネ，カナブン，トラハナムグリ，オオシマオオトラフコガネ，アオアシナガハナムグリ）を用い，ほかの46種はすべて終齢の3齢幼虫が用いられている．54種各種幼虫の一般形態，頭蓋，上唇，上咽頭，大顎，小顎，下唇，下咽頭，眼，触角，肢，胸部と腹部，肛門部，ラスター（尾端部腹面に存在する刺毛域），気門などの各部分の形態が157の図版に収録され，それらの形態的特徴について詳細な検討が加えられている．このように膨大な形態的特徴が図示されたことは，かつて私が澤田先生の訃を報じた折に触れたように（甲虫ニュース，81号），澤田先生が分類学よりはむしろ形態学的な面に強い関心を寄せていられたことの証左でもある．また，幼虫における詳細な比較形態学的検討に基づいて，(B)系統学的考察が展開されている．

日本産食葉コガネムシ群の8亜科（ヒラタハナムグリ亜科，トラハナムグリ亜科，ハナムグリ亜科，カブトムシ亜科，スジコガネ亜科，アシナガコガネ亜科，コフキコガネ亜科，ビロウドコガネ亜科）のうちでは，ヒラタハナムグリ亜科がもっとも原始的なグループで，残りの7亜科のうちではトラハナムグリ亜科が他の亜科に比べてより原始的なグループであるが，ハナムグリ亜科との関連性が強いと考察している．カブトムシ亜科は，ハナムグリ亜科とスジコガネ亜科とのあいだに位置するが，スジコガネ亜科よりはハナムグリ亜科により近縁であると指摘している．一方，アシナガコガネ亜科，ビロウドコガネ亜科，コフキコガネ亜科の3亜科は共通のprojenitorから派生したが，このうちではコフキコガネ亜科がいちじるしく特殊化したグループだと結論づけている．さらに，各亜科ごとに，それぞれに含まれる族および属についての類縁性についても考察を加え，従来トラハナムグリ亜科に含まれていたオオチャイロハナムグリをハナムグリ亜科に含めるべきだと主張し，独立の族を設けている．

このように，この論文は重要かつ注目すべき知見を含む豊かな内容を蔵しているが，これらの内容は一朝一夕に書けるものではなく，澤田先生の積年にわたる資料の蓄積と研究に対する不断の心掛けがあって初めて書きうるものである．この論文の価値を認識され，多大の犠牲をもいとわず，この論文を世に出された春子未亡人および玄道氏を中心とするご遺族の方がたに心からの敬意を表するものである．

（渡辺泰明）

Elytra, Tokyo, **20** (1): 127–128, May 15, 1992

Records of Some Curculionid-beetles New to the Fauna of Tsushima, Japan

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Tokyo, 156 Japan

Tsushima is a group of islands lying between the Korean Peninsula and Kyushu, and its fauna is interesting from the zoogeographical viewpoint because of the position and geological history. The present paper is aimed to record the curculionid beetles new to the fauna of Tsushima as the basis for further studies. I wish to express my hearty thanks to Professor Yasuaki WATANABE of Tokyo University of Agriculture and Professor Katsura MORIMOTO of Kyushu University for their kind advice on the present study, and to Mr. Michiaki HASEGAWA of the Toyohashi Museum of Natural History, Messrs. Kouichi MATSUMOTO and Yûichi OKUSHIMA of Tokyo University of Agriculture for their kind support of the specimens.

Apionidae

1. *Nanophyes usuironis* KÔNO, 1930
   1 ex., Mt. Tatera-yama, Tsushima Is., 27–VIII–1991, K. MATSUMOTO leg.

Curculionidae

2. *Lissorhoptrus oryzophilus* KUSCHEL, 1951
   1 ex., Mt. Tatera-yama, Tsuhima Is., 18–VI–1991, Y. OKUSHIMA leg.
3. *Rhynchaenus* (*Orchestes*) *japonicus* (HUSTACHE, 1920)
   1 ex., Waita, Tsushima Is., 17–VI–1991, Y. OKUSHIMA leg.
4. *Sphinxis koikei* (VOSS et CHÛJÔ, 1960)
   1 ex., Uchiyama Pass, Tsushima Is., 21–VII–1991, M. HASEGAWA leg.
5. *Anthonomus bisignifer* SCHENKLING, 1934
   1 ex., Mt. Shiratake, Tsushima Is., 17–VI–1991, Y. OKUSHIMA leg. 8 exs., Mt. Tatera-yama, Tsushima Is., 18–VI–1991, Y. OKUSHIMA leg.
6. *Curculio hilgendorfi* (HAROLD, 1878)
   1 ex., Mt. Mitake, Tsushima Is., 1–IX–1991, K. MATSUMOTO leg.
7. *Micrelus excavatus* HUSTACHE, 1916
   3 exs., Mt. Shiratake, Tsushima Is., Y. OKUSHIMA leg.
8. *Trachodes subfasciatus* VOSS, 1957
   1 ex., Uchiyama Pass, Tsushima Is., 21–VII–1991, M. HASEGAWA leg.
9. *Acicnemis kiotoensis* NAKANE, 1963
   2 exs., Uchiyama Pass, Tsushima Is., 22–VII–1991, M. HASEGAWA leg.
10. *Acicnemis shibatai* VOSS, 1971
    1 ex., Mt. Tatera-yama, Tsushima Is., 21 ~ 25–VII–1991, M. HASEGAWA leg.

11. *Mechistocerus rugicollis* (ROELOFS, 1875)
    1 ex., Waita, Tsushima Is., 17–VI–1991, Y. OKUSHIMA leg. 1 ex., Mt. Tatera-yama, Tsushima Is., 18–VI–1991, Y. OKUSHIMA leg.
12. *Catabonops monachus* ROELOFS, 1875
    1 ex., Waita, Tsushima Is., 17–VI–1991, Y. OKUSHIMA leg.
13. *Deretiosopsis nigrisetis* MORIMOTO, 1988
    1 ex., Mt. Tatera-yama, Tsushima Is., 21～25–VIII–1991, M. HASEGAWA leg.

Rhynchophoridae

14. *Cryptoderma fortunei* (WATERHOUSE, 1853)
    1 ex., Waita, Tsushima Is., 17–VII–1991, Y. OKUSHIMA leg.

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Elytra, Tokyo, **20** (1): 129–130, May 15, 1992

On the Microhabitat of the Bornean Passalid Beetle, *Taeniocerus platypus* (Coleoptera, Passalidae)[1]

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Most passalid beetles are known to live in colonies, comprising a bisexual pair and their offspring, within dead woods (Reyes-Castillo & Halffter, 1983). A few species, however, are known to occur in other microhabitats: among decayed vegetable refuse, under epiphytic bromeliads, in the nest of leaf-cutter ants, among the rhizomes of epiphytic ferns, on the ground under fallen trees and in the cortex of dead bamboo culm (Gravely, 1914; Schuster, 1978; Reyes-Castillo & Halffter, 1983; Johki & Kon, 1987; Kon & Johki, 1987; Kon & Araya, 1991). Johki and Kon (1987) showed relationship between habitat and body shape in adult passalid beetles: flat species living under the bark of dead trees, more convex ones in the gallery excavated more deeply into the sapwood of dead trees, and ones with markedly wide front tibiae in the detritus-like microhabitats.

Taeniocerus platypus has wide front tibiae like its congeneric species, *T. bicanthatus* which are known to live in the interface between the log and the ground (Kon & Johki, 1987). In Gunung Murud (1,100 m in altitude), Sarawak, Borneo, in January, 1991, we collected a colony of *T. platypus* and found this species also living in colony on the ground under the log, not tunneling into logs, as observed in *T. bicanthatus*. This colony comprised 1 male, 2 females, 3 pupae in the cocoon, and 5 third (final) instar and 2 second instar larvae. They were living within an oval shallow depression (8 cm and 20 cm in short and long axes, respectively) on the ground under the fallen tree. The 3 pupal cocoons made of soil were densely aggregated in the corner of the colony. The ceiling of the colony, the lower surface of log, had a trace of being scratched. The larvae appear to depend for food on the triturated wood taken from the ceiling by the adults, because they (at least smaller ones) seem unable to take the wood directly from the ceiling. In addition, a bisexual pair and two single females were collected in the same type of microhabitat.

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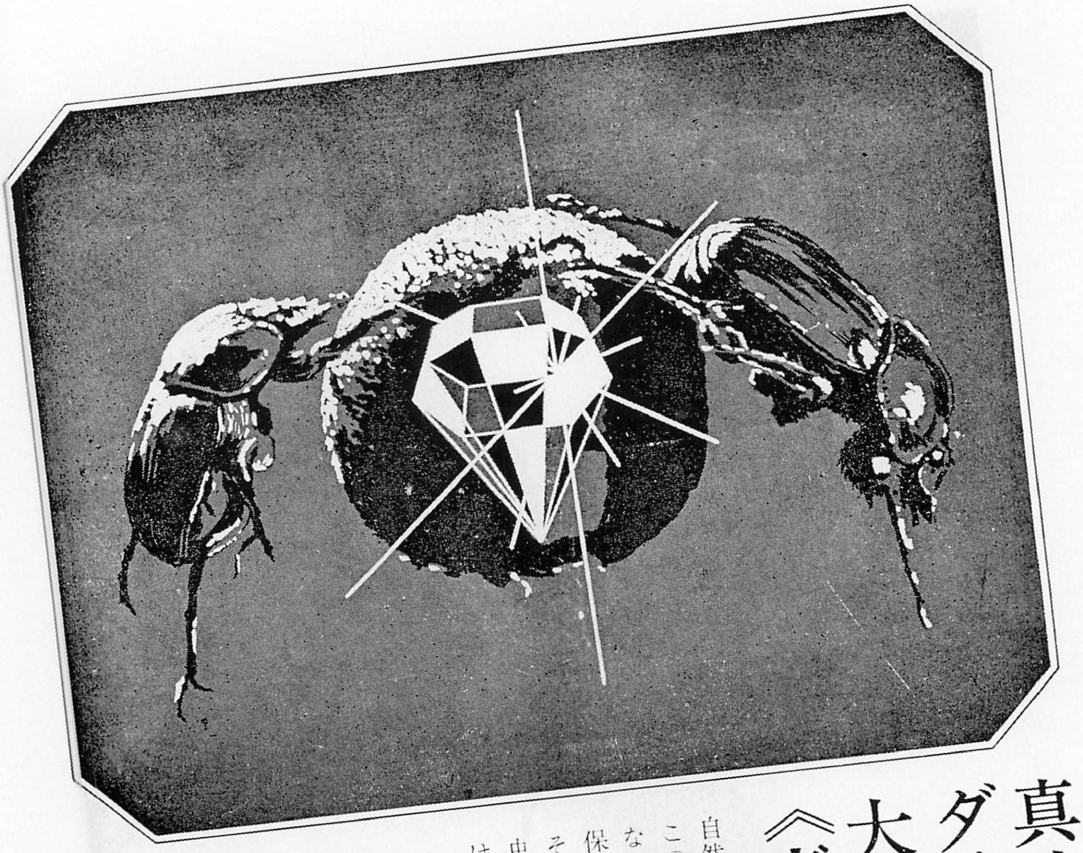

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